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YY BUILDING, CANARY WHARF

BREEAM Outstanding refurb by Buckley Gray Yeoman reuses an early Docklands building for bio-enhanced workspace

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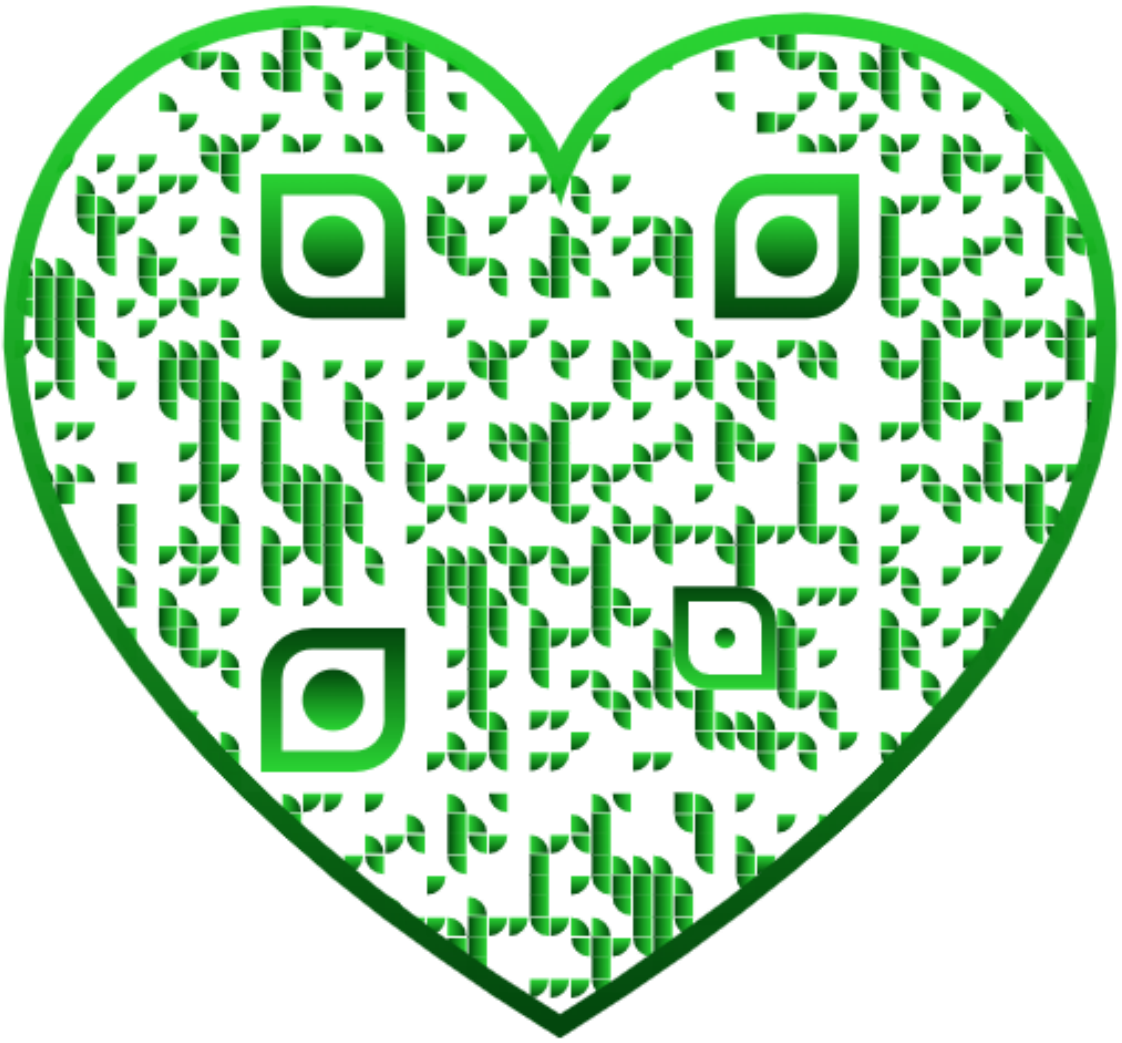

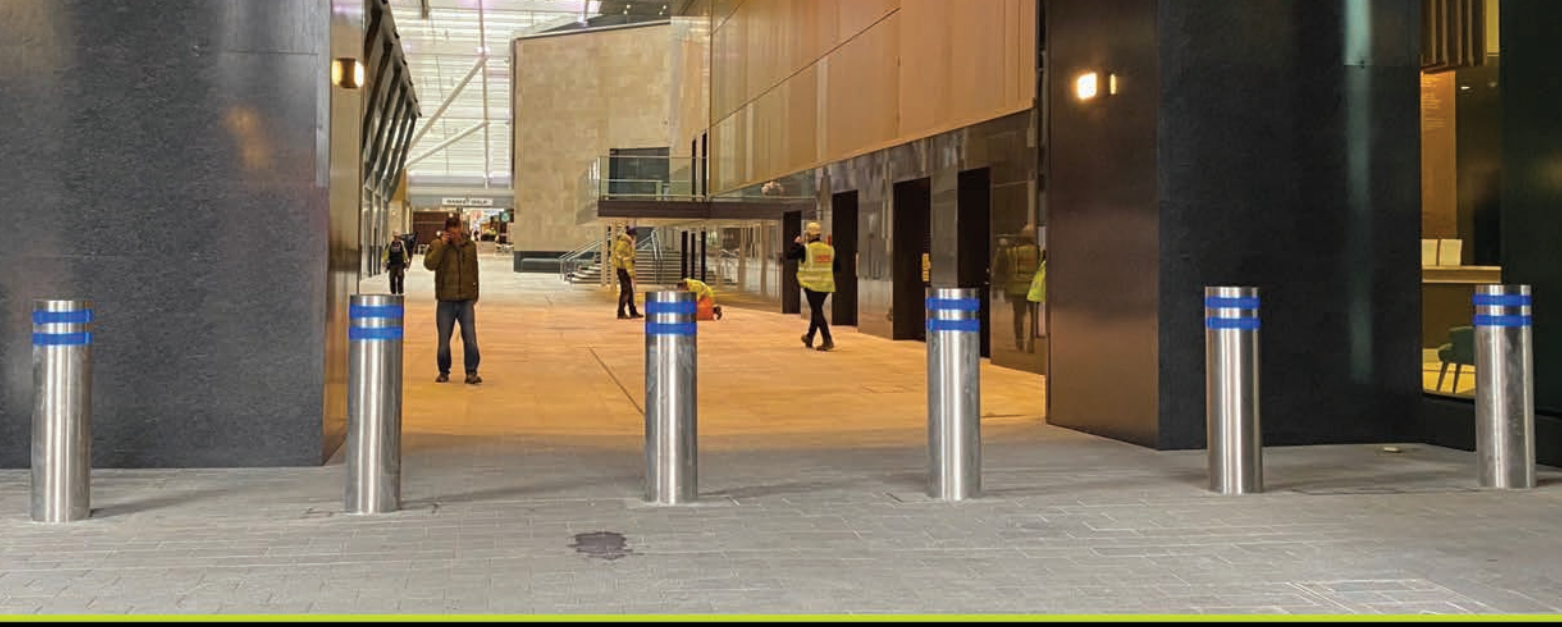

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FROM THE EDITOR

What is being seen as a landmark case in the long wake of the Building Safety Act has seen the then Barratt Developments (now Barratt Redrow) win out, establishing a precedent that developers won't have to pick up the bill for remedying buildings. In particular, this case shows that developers can pass on this cost to subcontractors even if the work was historical, and they commissioned the work voluntarily.

Barratt subsidiary BDW Trading (including David Wilson Homes) won in the Supreme Court recently against structural engineer URS Corp (part of Aecom). In 2019 Barratt underwent a review of its high-rise buildings and structures in London, Leicester and Croydon were found to have serious issues. However, the real issue for the industry going forward is that a seven-member judging panel found that URS was accountable for the cost of remedying these defective designs – despite these occurring before the newly tightened provisions of the BSA.

When the Government, shocked by the Grenfell tragedy, asked developers to inspect and remedy defects on their high-rise buildings, Barratts proactively engaged in this process across a range of sites. They claimed the cost of the repairs under the Defective Premises Act 1972, whereas the structural engineers' case rested on the somewhat confusing basis that Barratts was liable as it was not under any legal obligation to remedy the defects. The judges threw it out, starkly clarifying the Building Safety Act's 30 year limitation on liability. Expect a flood of cases from developers pursuing alleged negligent designers and subcontractors for historic building safety failings.

At the same time as bolstering developers' confidence that they will not foot the bill for remedial works, momentum is building for central Government to bolster its support of domestic retrofit. The Energy Security and Net Zero Committee however recently issued a major report on the current retrofit programme, which criticised "stop-start measures and short funding cycles," which have "undermined confidence of consumers, installers, and the wider supply chain." It also attacked the Government for not having clarified "how it will support retrofit beyond 2026, when key schemes are due to expire."

The Committee's long list of recommendations include a simpler set of schemes suitable for less affluent homeowners, and more consumer education. One also echoed the Federation of Master Builders' long-term call for licensing of retrofit contractors. Which of these will the Government even look seriously at?

There is confidence being shown by a couple of major players on the supply side, that not only the Future Homes Standard will eventually see the light of day, but also that the retrofit agenda is going to support a major upsurge in demand for insulation. Saint Gobain and Knauf recently announced they are to open UK factories making mineral wool, in Melton Mowbray and Shotton respectively, as the two giants pursue Scope 3.

James Parker, Editor

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ON THE COVER...
The YY Building in Canary Wharf, a refurbishment of the former 30 South Colonnade into 415,000 ft² of biophilically-enhanced workspace.

Cover image © Tim Soar
For the full report on this project, go to page 16

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AWARD

Nottingham practice's rising star gets AI award

Nottingham-based architectural practice CPMG has been celebrating following recognition of the AI design capabilities of one of its young rising stars, Qasim Iqbal.

The Part 2 architectural assistant was recently been credited in the International AI Design Awards for his design abilities using artificial intelligence technology, including a second-place award and a special recognition award for two of his architectural designs.

Born and bred in Nottingham, Iqbal studied for undergraduate and masters degrees in architecture at Nottingham Trent University (NTU) before joining CPMG's growing team at its Nottingham studio – kickstarting his career in architecture.

Speaking on his success and his role at CPMG, Qasim said: "I first began utilising AI to generate ideas while I was studying, and this is where I saw its true potential as a tool to support my work. From then, I've been able to enhance my skills in the creation of design through AI, to blend dreams and reality, pushing real elements beyond reality's limits.

"As the team at CPMG continues to grow and the industry in Nottingham, and across the UK, continues to develop, AI will certainly have a role to play in the future of design. In my view, this is as support for human touch, not as a replacement for it, especially in everyday architecture work where real-world experience is so important to truly understand a design that will be fit for its intended people and purpose."

Regionally, CPMG continues to play a pivotal role in the development and growth of Nottingham through its work. This includes the creation of its own award-winning studios on St. Peter's Gate, delivery of NTU's new Design and Digital Arts building, the reinvention of Nottingham War Rooms, and through its historic charity work for causes like Emmanuel House and Switch Up.

APPOINTMENT

RIBA appoints Webb to grow its West London network

Marking a new era for West London architects, Bill Webb, CEO and co-founder of architecture practice Able Partners, has been elected branch chair of the Royal Institute of British Architects (RIBA) West London Group.

Webb said he plans to "deepen ties among the community of RIBA West London members through regular in-person breakfasts, networking and drinks events," These will target over 300 chartered practices and 2,000 members across Westminster, Kensington and Chelsea, Hammersmith and Fulham, Ealing, Brent, Harrow, and Hillingdon.

Starting with the RIBA London Summer Social series which took place on 3 June, the RIBA West London Group's brought together major practices, SMEs and students in the sector. The Group's intention was to promote peer-to-peer learning, insight on how to grow and win work, employment opportunities, access to the latest talent, as well as creating a forum for sharing best practice and advice.

Webb said: "As someone who has built a practice in the area, it is an honour to be taking on the mantle of chair from fellow West London architect, Paul Tierney, to bring together architects of all shapes and sizes from across west London. By connecting a diverse group of people, I hope to create an environment from which everyone benefits – from creating employment and partnership opportunities to awareness of the latest trends in the industry.

"Many of the best ideas are born at in-person events when you put a group of creatives under one roof. For this reason, I believe that creating a calendar of diverse and inclusive events, that are not only interesting and insightful but also fun, is essential to the success of the RIBA West London Group."

A series of major projects are set to change the face of West London architecture over the coming years, including London Heathrow Airport's third runway, the development of Paddington Station area, and the £1.3bn redevelopment of West Kensington's Olympia, providing ample opportunity for local practices.

John Nahar, regional director of RIBA London, said: "We are delighted that Bill has been appointed to lead the RIBA West London Group during this exciting time of growth and change. Having met with each of our newly elected branch chairs following the elections, I have been left even more positive about the refreshed programme of events we are going to develop across London for our members.

"I'm confident that Bill will bring a new energy and dynamism to the West London Group, while bringing together members, students, local authorities, and wider construction industry professionals to drive meaningful conversations and opportunities."

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HOUSING

Plans submitted for 100% affordable housing ‘community’ in Cheltenham

Plans have been submitted to revitalise a disused school site in Cheltenham to create a new green neighbourhood of 70 affordable homes.

Architects and landscape architects from design practice BDP have led the design of the proposed project on the former Monkscroft School site for Cheltenham Borough Council.

The plans for the new development have been designed as a “direct response to housing needs in the area,” said BDP, offering 100% affordable housing. The homes consist of social rented properties as well as shared ownership homes, which will be available for first time buyers in due course. There will be a mix of one, two, three, four and five bedroom homes which will be energy efficient, “in line with the anticipated Future Homes Standard.”

The homes are set within an eco-friendly landscape with natural habitats, public open spaces with wildflowers, new and retained trees, as well as hedgerows, vastly improving the area. Taking on board public feedback to provide a community space and promote a sense of wellbeing, the site will include a community growing area, green promenade and a green central open space for everyone to enjoy. Electric charging points for cars and solar panels will also be provided as part of the project alongside designated car parking.

Adam Darby, architect associate at BDP, said: “Plans for this highly sustainable new neighbourhood feature a range of types of affordable housing to cater for people at all stages of life with plenty of green spaces to support biodiversity and the well-being of residents.

“A new green, open space at the heart of the community is designed to create a safe space for children to play and people to connect with one another, whilst active travel routes for pedestrians and cyclists will meander through a car-free ‘green promenade’, helping to connect nearby neighbourhoods into the site.”

A full planning application has been submitted to the local planning authority.

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SITE LINES

Engineering-out structural emissions early

Jack Brunton and Ioana Price of AECOM explore how designers can redefine carbon calculations by assessing carbon at the early design and optioneering stage.

The built environment is a significant contributor to the UK's carbon emission and is responsible for almost 25% of the UK's total greenhouse gas emissions. Within that footprint, a significant share lies in embodied carbon – the emissions associated with materials extraction, manufacturing and construction that are locked into a building before it's ever occupied.

It's no secret that decarbonisation remains at the top of the sector's agenda given the critical role we'll play in helping to achieve the UK's net zero targets. Progress is being made, but not at the pace we need. Between 2018 and 2022, emissions from the UK built environment fell by 13%. That sounds promising – until you realise we needed a 19% drop in the same period to stay on course for net zero.

That shortfall of 6%, or 11 million tonnes of CO_2 equivalent, is roughly the same as the total annual emissions of 6.5 million cars.

We need to innovate our approach if we're to bridge this gap.

Early-stage optioneering: a different approach

Traditionally, structural carbon calculations are carried out at the end of RIBA Stage 2. By this point, the massing is often fixed, materials are broadly decided on and carbon is something we try to reduce at the margins. That's not good enough.

The decisions that make the biggest impact on carbon – decisions about structural frame typologies, material types, building form and geometry – are made far earlier, typically during RIBA Stages 0 and 1.

At that stage the design is still fluid. Key decisions about structure, layout, and materials haven't been locked in yet, so there's still flexibility to explore low-carbon options without adding time or cost. However, structural engineers are rarely involved in detail at that point, and carbon calculations are often seen as too slow or too expensive to be viable.

Fortunately, tools are being developed to make carbon calculations simpler to embed in the earliest stages and avoid costly retrofits.

For example, at AECOM, we've developed Eco.Zero – the industry's revolutionary conceptual design tool that allows structural engineers to carry out rapid carbon and cost comparisons for a range of structural frame options, tailored to a project's specific use, geometry and ground conditions. The idea is simple: empower the design team to make informed, low-carbon choices from day one, and do it without adding delay or cost.

At its core, Eco.Zero is a suite of digital tools built to support AECOM's structural engineers in the earliest stages of design. It was developed in-house by our multidisciplinary team – structural and geotechnical engineers, sustainability specialists and cost managers – to allow for instant optioneering across 11 structural typologies. You can toggle parameters like building height, number of storeys, basement inclusion and structural material to explore how each impacts both embodied carbon and cost.

A tool designed by engineers, for engineers

Crucially, Eco.Zero's not just a calculator – it's a design tool. Other tools might offer carbon data, but no others include full foundation design, real cost data and the ability to iterate structural solutions in seconds rather than weeks.

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That means architects, clients and engineers can sit around a table and discuss carbon and cost implications right from the outset. And crucially, they can do it with robust data in hand. It makes conversations more collaborative, less hypothetical and more productive.

The traditional process might see a structural engineer take a couple of weeks to develop viable options, followed by reviews with quantity surveyors and sustainability consultants. That's a lot of time spent before you even start making meaningful comparisons. The tool supports a variety of uses – from residential to healthcare, commercial to education.

A case study in impact

Designs for the new Queen Mary School of Business and Management in Mile End, London offers a unique case study for the impact of Eco.Zero. The scheme for a new seven-storey campus building had previously progressed to RIBA Stage 4 before being paused. But when the project restarted in 2021, we had the opportunity to re-evaluate the structural design from a carbon perspective using Eco.Zero as an integral part of that process.

Using the earlier design as a baseline, we assessed 11 structural frame typologies with Eco.Zero to identify the most efficient solution in terms of embodied carbon, buildability and performance. We worked closely with the architect and facade engineer to optimise column grids and layouts, while early engagement with the wider design team helped ensure that decarbonisation was embedded from the outset of the project.

Combined with improvements to the structural frame and foundations, targeted material specification, and close coordination with the contractor's piling specialists, the tool helped deliver a 35% reduction in embodied carbon compared to the original scheme.

This project has since been presented at AECOM's global technical academy and continues to support our wider learning on how to embed decarbonisation into structural design workflows from the outset.

A platform for change

The construction industry has long worked within tight margins – for time, cost and carbon. With growing pressure to deliver on net zero, we need tools that enable faster, smarter decisions without compromising design quality or delivery timelines.

Tools like Eco.Zero aren't a silver bullet, and won't solve embodied carbon on their own. But it's one example of how we can rethink our approach – how we can bring structural engineering, sustainability and cost management together at the moment it matters most: the beginning.

Jack Brunton is structural sustainability lead & Ioana Price is deputy structural sustainability lead at AECOM

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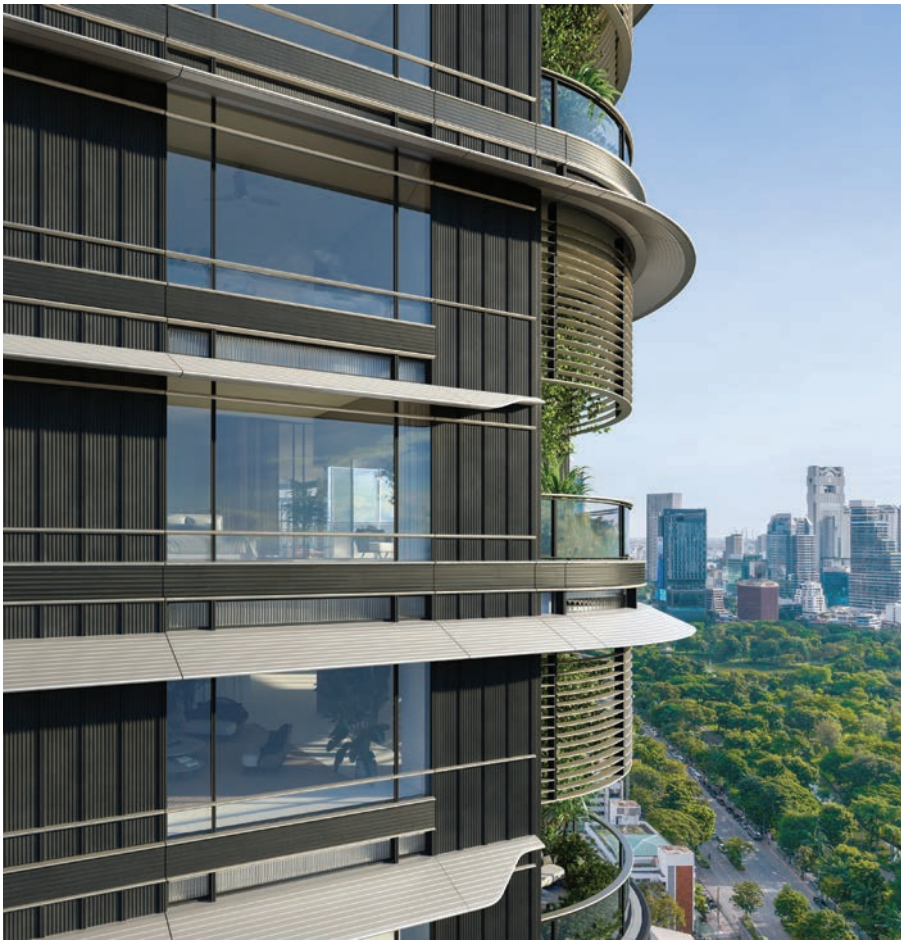

WIRELESS ROAD, BANGKOK
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Construction has begun on two new ultra-luxury residential towers (214 metres and 284 metres) in the heart of Bangkok. Located on Wireless Road, the development is adjacent to the 142-acre Lumphini Park, which is regarded as the first public park in Thailand. The project designed by Foster + Partners through its local entity F&P (Thailand), who said it "extends the experience of the park across the development's ground plane and vertically."

Each tower is made up of two interlocking square volumes, which are rotated by 45° to minimise overlooking and maximise city views of the park and the city's Central Business District. The buildings step down towards the road to reduce their visual impact, with large plates at different intervals to further break down their massing. The timeless facade has a "strong horizontality," said F&P, with striking textured awnings that shade the interior spaces.

Each tower has its own entrance and drop-off zones for residents and guests, which enable direct access from tree-lined driveways. Shaded verandas with overhanging canopies wrap both buildings at ground level, creating indoor-outdoor spaces for socialising and relaxation. A discreet route from the first tower leads to a private pool, a single-storey children's pavilion, and a separate children's pool. The glass pavilion is filled with natural light and provides direct connections with the spectacular natural landscape. Private lifts transport residents to their apartments, where some prime units feature large double-height balconies that offer panoramic views of the city.

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Canary conservation

Ruth Slavid reports on how Buckley Gray Yeoman successfully pursued the most sustainable option for a real estate client in Canary Wharf – reusing one of the site's original offices with a BREEAM Outstanding refurb, enhanced by some striking cladding.

Forget low embodied energy materials. Forget designing to minimise energy consumption. Actually, don't forget either of these, as they are really important. But they are outweighed by the biggest way to reduce carbon emissions when designing a new building: not demolishing the building that you already have.

This kind of preservation and reuse is a field in which architect Buckley Gray Yeoman has specialised, but when the practice first started looking – before the pandemic – at one of the earliest and most dominant buildings in Canary Wharf, this conservation approach was not common. Nevertheless, says Adam Wood, associate director, "there was nothing wrong with the original structure; we always planned to re-use it." In the process of doing a "due diligence" for the client he says that while they "knew there was a climate emergency," the approach of reuse seemed unorthodox, and "people were surprised." Buckley Gray Yeoman's determination, however, won out, and has been more than vindicated.

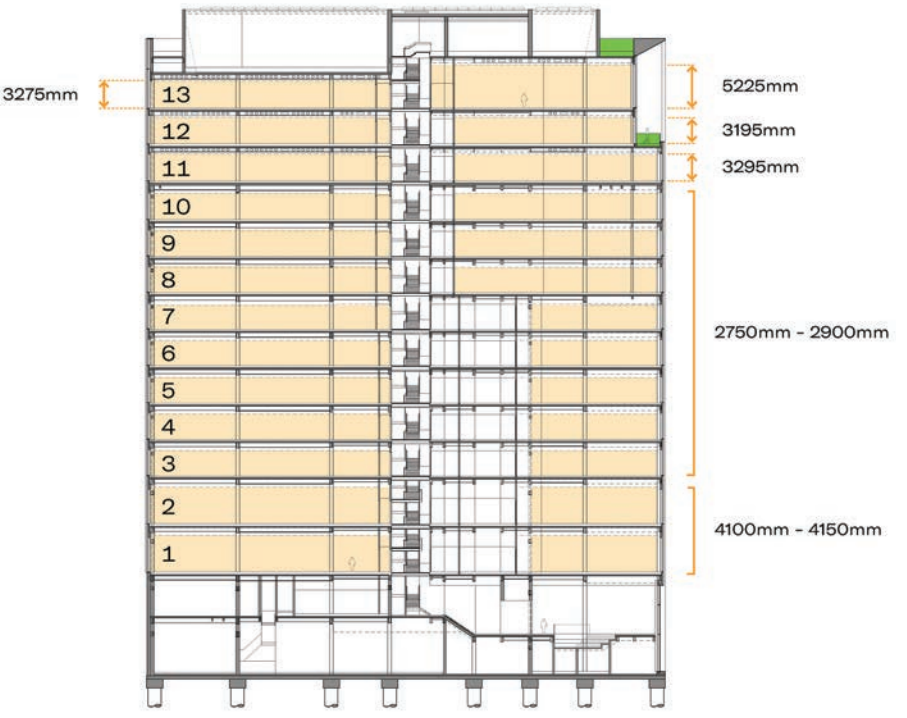
The building was originally called 30 South Colonnade. Designed by architect KPF and completed in 1991, it was best known for the 'ticker-tape' LED display of stock prices that appeared on the facade. Although structurally sound, the building was very much of its time – inward facing, with a tired stone facade and an environmental performance that was not suited to the second quarter of the 21st century. Buckley Gray Yeoman has transformed the building for clients Quadrant Estates and Oaktree, creating extra floors, and a far more open feeling. It has achieved BREEAM Outstanding, as well as meeting other important standards. The new, distinctive cladding, forming interlocking 'Y'-shaped ogees at top and bottom, has even gifted the building its new name – the YY building.

Unlocking the fortress

Arranged around a central atrium, the original building was, says Wood, "very fortress like – it did not connect with Canary Wharf, with the wider estate, or with London as a whole." Indeed, it was built at a time when the main public transport into the area was via the Docklands Light Railway. Getting to and from Canary Wharf Station on the Jubilee Line extension, which was built subsequently, and to the even later Elizabeth Line, was clunky and inconvenient. And it didn't satisfy today's workplace needs. The contemporary workplace now created is far more collaborative than what the

"We had a full set of record drawings, unlike some smaller buildings of that period that we surveyed"

Adam Wood, Buckley Gray Yeoman



building offered in the 1990s, with a greater emphasis on wellness – including access to daylight. If companies are to attract the best people, says Wood, "they need to offer the best in class."

The shape of the building was unusual. Cantilevering over Middle Dock, and supported on a grillage of beams, it was designed with two equal, straight sides, facing north and west, and a single curved facade moving from east to south facing. The heavy stone cladding had fairly generous glazing to the mid floors on the curved facade, but was only minimally glazed above and below.

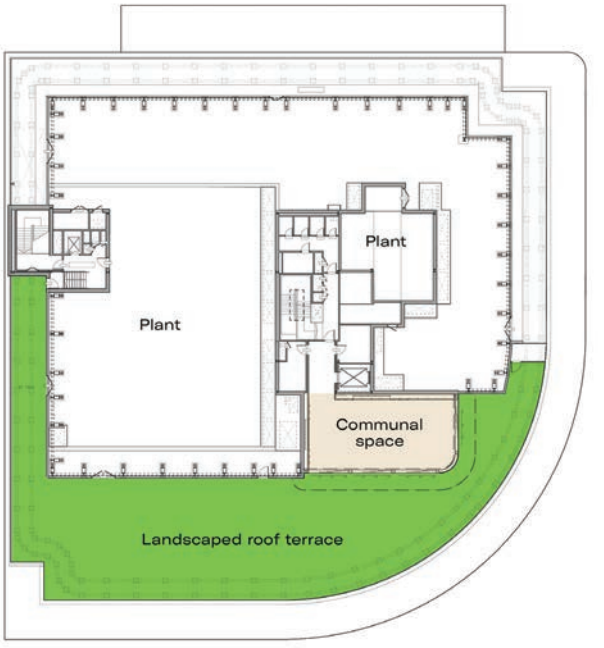
Because of the cantilever, it would not be possible to enhance the foundations, and therefore any additional space would have to be added within the load that the existing foundations could support. "Fortunately," says Wood, "we had a full set of record drawings, unlike some smaller buildings of that period that we surveyed." This allowed engineer Waterman to calculate exactly how much additional load the structure could support. Removing the heavy stone cladding and replacing it with a glazed curtain walling system saved enough weight that the team was able to add three more floors. Conserving the original steel structure has, the team calculates, saved 10,260 tonnes of CO_2 equivalent.

Quantity & quality

The original building had an inset floor at level eight. By infilling this and much of the atrium, and extending upwards with a lightweight steel structure, the net internal floor area has increased by about 25%, to a total of 414,311 ft². This is a considerable achievement, but would count for little if the quality of that space had not also improved significantly.

That it has is apparent from the moment that one arrives at the building. Previously, there was only one way in, from Jubilee Plaza, on the south east corner. This is still an entrance, but whereas previously visitors passed through a narrow stone barrel that was almost cave-like, now they enter through the welcoming curves of one of the ogees to a colonnade that runs around the curve of the building, and then through a door in the set-back glass curtain walling. They then find themselves in the triple-height reception space. There is also another entrance to this space, from the lower south colonnade at the north-east corner of the building. This is at the level of the reception area and of the main lift core. Visitors who come in from Jubilee Plaza go up a curving staircase to reach reception.

The organic shape of this triple-height space, enhanced by large circular mirrored areas in the ceiling, is like a statement of



intent for the entire building. It speaks of openness and modernity rather than pure functionality and a lack of generosity. A timber-clad wall shows the commitment to natural materials and a tree at the lowest level is a first indication of the commitment to plants and to nature.

Green growth

This is not just any old tree. It is an 8.5 metre high Indian fig; an evergreen with dense, shiny foliage, a grey trunk and visible roots. Buckley Gray Yeoman chose the tree in consultation with a tree specialist employed by Townshend Landscape Architects. There is a great determination for it to have a long successful life as a key part of the overall building – as Wood says: "It is not just for the photos." He is delighted it is producing new shoots, thanks to the advice and continued involvement of Townshend. The tree is set on a rotating base, so that every three or four months it can move by a quarter turn; meaning it will not distort by growing towards the light. Daylight lamps augment the sunlight, and moisture monitors in the soil help inform the watering regime.

While the steel frame is the most significant element that has been preserved, it is not the only one. The team managed to retain four of the six original lift shafts, adding new ones at either end, and kept some of the secondary stairs as well. The cladding, however, which forms much of the public face of the building, is entirely new.

Fully glazed, it greatly increases the amount of light that comes into the building, while reducing the air permeability. High-performance solar coatings reduce the potential for solar gain. Unusually for a building of this type, the curtain walling peels back for four bays on the side facing the dock. At this point there are inset balconies, allowing access to fresh air at every level. Planting on these balconies, cascading down the facade, brings more green into the building.

The most generous planting, however, is on the top floor, at level 14. A 4,500 ft² landscaped terrace on the south and east side shares the space with the top of the three-level plant room. It has been planted with species that will offer year-round greenery and provide support for bees and other pollinators. Overall, the planting has been designed to appeal to both the visual and the olfactory senses. It includes mature trees that will provide shelter both for office workers and for wildlife. This terrace is accessible to all users of the building. In addition, there is a 1300 ft² communal rooftop pavilion which will be usable in all weathers.

NEW WELCOME
Replacing the narrow original entrance on Jubliee Square is a welcoming main access via the colonnade formed by the new facade's ogees

SQUARING THE CIRCLE
The building was designed with two equal, straight sides, facing north and west, and a single curved facade

Facades

Like many successful ideas, the evolution of the cladding form (the distinctive 'YY' ogees) was relatively simple. The architects started with vertical elements that work with the existing structural grid of 6 and 9 metres. They then interspersed a finer set of verticals on the office floors, offsetting this at the very top, and defining a clear hierarchy for the building of base, middle and top.

Finally the designers added the 'twist' – diagonal members joining the broader grid of the base to the finer office grid, and more diagonal members at high level joining the offset vertical elements of middle and top. In this way the architect created the distinctive ogees, which are larger at the base than at the top of the building.

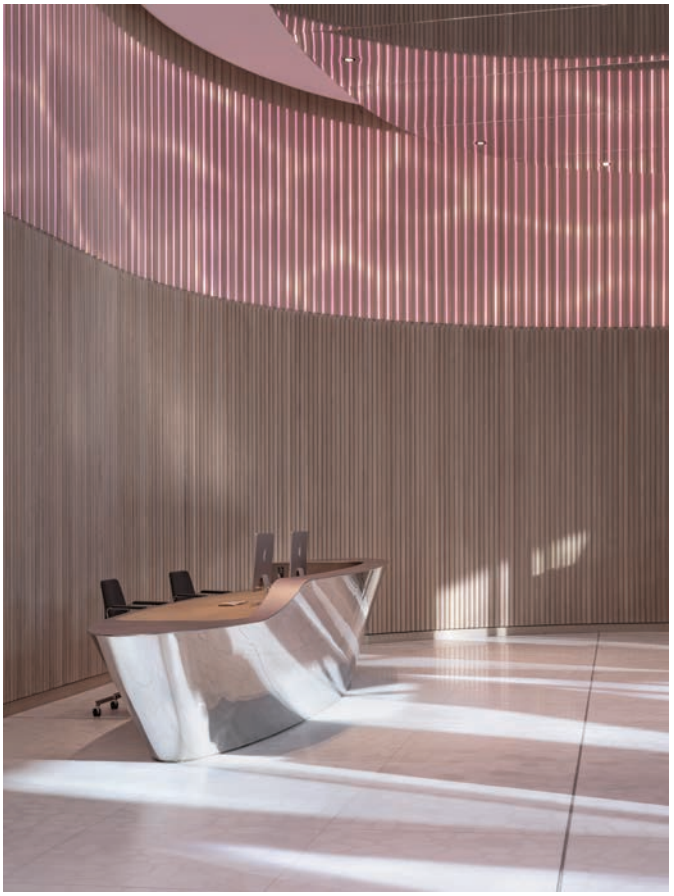
At the base of the building are retail units, which will be accessible through the reception area. The rest of the space is occupied by offices, which can be let as whole or partial floors. Revolut, a digital bank founded in 2015, has taken the top four floors.

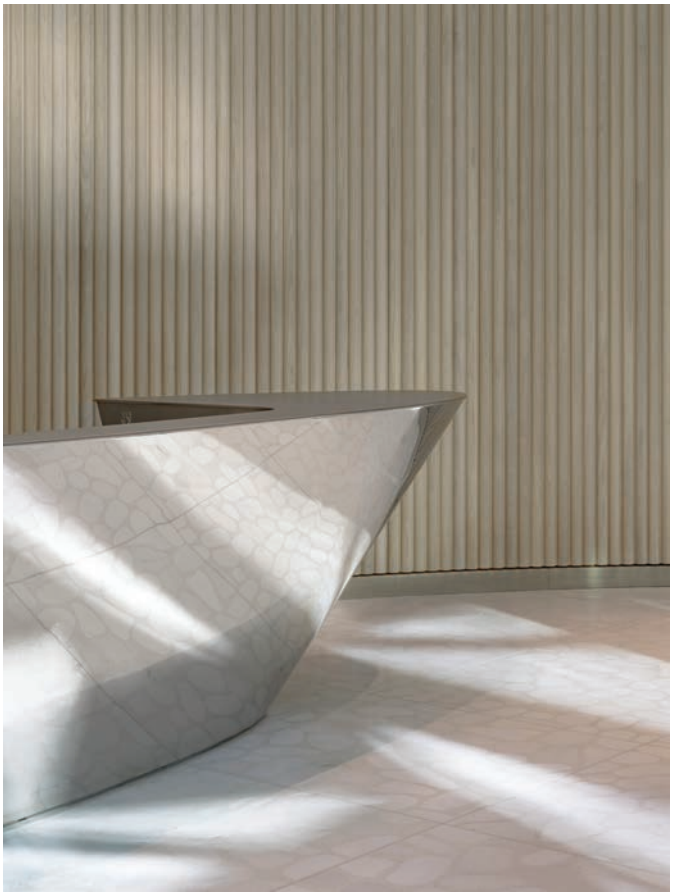
The existing floors have a 4 metre floor to ceiling height. The base fit-out includes raised access floors and suspended ceilings, with a tartan grid. Services are supplied through the ceilings. The new floors, where there is more flexibility, have exposed ceilings. The tallest floor-to-ceiling height is 5 metres.

Even with its additions, the building is by no means one of the tallest in the Canary Wharf development but its position, overlooking water, means that it can never be boxed in and therefore will remain dominant and not overlooked.

Environment

In addition to the savings in embodied carbon, and the savings that result from the improved performance of the curtain walling, there is a strong environmental strategy running throughout the building. It is all-electric, with rooftop photovoltaic





panels and air-source heat pumps providing heating and cooling. Waste heat is re-used. There is no greywater recycling within the building, although it was considered; Wood explained that there was no room within the existing floor to ceiling heights for the necessary services.

Materials, wherever possible, were sourced sustainably and in a form that will allow them to be recycled. The architect looked at the possibility of re-using the old cladding in some form, especially as it was panellised and mounted on a precast concrete facade which meant that removing it was relatively easy. But Wood explains that, although the team looked at re-using some of the stone within the terazzo floor in reception, this proved to be impractical. Because the stone was bonded to the concrete panels, it would have needed to be crushed and used as the base. At the time, this process could only have been carried out in Italy, which would have meant shipping the heavy panels there and then bringing back the finished material, negating the environmental savings. Wood however remarks that now, companies in the UK are doing this work.

The brief for the building was to achieve an EPC of B and BREEAM Excellent. It surpassed both of these, with an EPC of A and BREEAM Outstanding, both the highest rankings available. It is also 'WELL Platinum-ready' (the WELL Standard, which measures the health of buildings by seven criteria, can only be finally confirmed when the building is occupied and in full use).

The credentials don't stop there. The building has also been rated on the Australian NABERS rating scheme which measures both the embodied and the operational carbon of a building. The original target was to go for a five-star rating which equates to excellent (the scheme goes up to six stars, which is 'market leading'). But the target was lifted to 5.5 stars – likely to be the maximum possible within an existing building. The final rating will not become available until the building has been in use for a full year.

The building has also achieved both a WiredScore Platinum and SmartScore Platinum. There is a relationship

The organic shape of this triple-height space is like a statement of intent for the entire building

between the two, but they are not the same thing. Both are a way to measure the building's resilience and its use of technology to ensure smart building outcomes, and both are administered by the same organisation, WiredScore.

The difference lies in what they measure. WiredScore looks at connectivity and the resilience of systems coming into the building. It measures connectivity to mobile and internet services, the ease of connection to the internet, the ability to accommodate new and emerging technologies and resilience against outages, accidental damage, cyber attack and the impact of climate change.

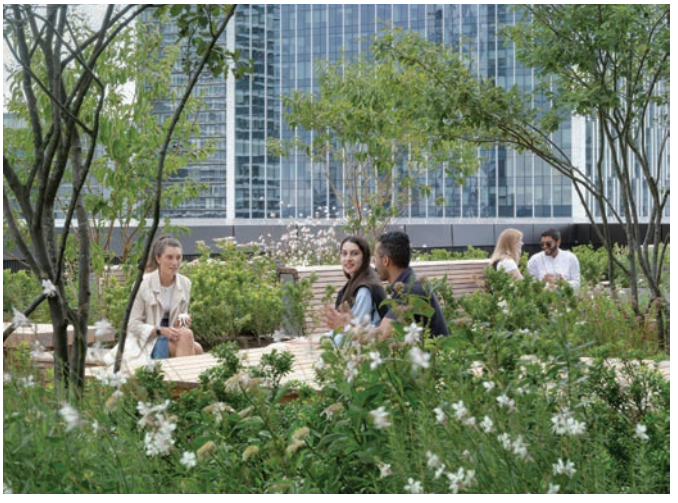
SmartScore certification is a newer measure, only launched in 2021. It focuses more on the experience that the building can offer users. Highly scoring buildings give users a great experience, with flexible and personalised services. They have a reduced whole-life carbon footprint, use technology to operate the building more

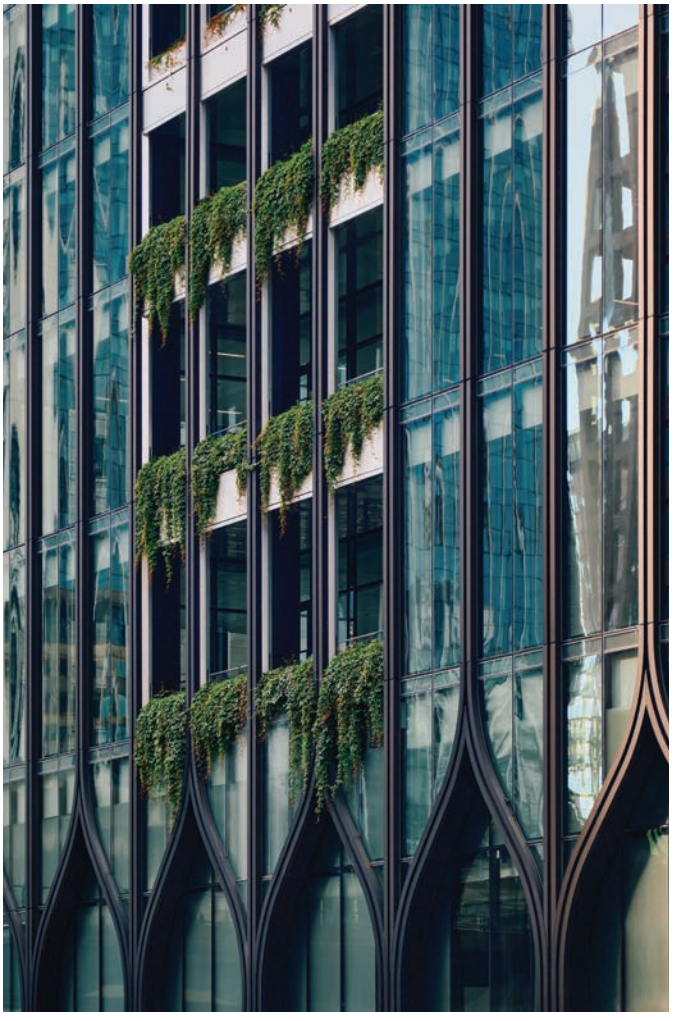
efficiently and are resilient, being able to accommodate changes that are both expected and unknown.

One important way in which the building satisfies these criteria is through the use of a digital twin, which updates and models every element of the building's operation, from lighting control to indoor air quality and occupancy analytics. There is also a special app designed for the building's users.

Although the project spanned the Covid pandemic, with the first appointment made in April 2019, and practical completion in July 2023, the final account only exceeded the contract sum of £135m by £600,000. This was, the team believes, in large part due to directly letting several key subcontracts: the facade, structural steel, MEP, lifts and the reception desk. The client was able to do this on a design and build basis because Buckley Gray Yeoman provided early specifications and drawings in advance of RIBA design stage 4. The biggest saving in both total and percentage

This is no ordinary tree; it is an 8.5 metre high Indian fig with dense, shiny foliage and visible roots





TRANSFORMED
Although a refurbishment, the project has tackled the workspace's various shortcomings such that users would experience it as a new building

terms was on the facade, where a saving of between £5 and £8m represented a 30% reduction in cost.

In touch with history

Almost all the shortcomings of the original building have been eliminated, so that casual observers would see an entirely new building, and one built to the most demanding of contemporary standards. But Canary Wharf, despite its relevant youth as a development 'cluster,' has its own history – and the designers have paid tribute to that built legacy.

The eye-catching ticker tape screen around the outside of the original building is now referenced from within reception in the form of a high-level array of LED lights in a strip around the area. These can convey words or images, as required. Woods says this 'digital art wall' can show a pattern of water, of trees or of clouds. In contrast to the previous more mundane communication of stock market prices, it enhances the building's connection with nature.

There's another piece of development context to the project which is a fortuitous alignment with its nature focus. Canary Wharf Partnership has renamed the Middle Dock as Eden Dock, in reference to the Eden Project, transforming it to create a place for nature and biodiversity within an intensely developed business area. There is a well-established concept of 'borrowed landscape' – buildings which benefit from their surroundings. In the case of the YY Building this is purely serendipitous – but given all the deliberate steps that have been taken to improve the quality of the original the serendipity seems well-deserved. What could benefit more from an improved setting, than a building that has conserved its frame, extended and turned itself into a pleasant, welcoming, healthy and environmentally responsible place in which to work? ■

Gilberts helps CBRE combine aesthetics and occupant comfort

An office relocation of just five metres represents a "seismic move" for global commercial real estate specialist CBRE, designed in every aspect to create a great workspace, achieved in part by careful selection of the ventilation.

The company has relocated within 4 St Pauls Square, a seven-storey Grade A BREEAM Excellent rated office development in Liverpool's new commercial district to provide its team with the best workplace

environment and have room for expansion.

Arterior Solutions was appointed to deliver the interior design developed by CBRE's in-house team, and turned to Gilberts Blackpool to support in combining the desired aesthetics with occupant comfort.

Gilberts' omni-directional swirl diffusers blend into the exposed ductwork while enabling smooth distribution and extract of air across the floor plate without "cold dumping".

Slimline high capacity slot diffusers above the external large expanses of glass discharge vertically to maintain a clear view across the city; above the internal glazing and office entrance, the same model of diffusers have been set to horizontal airflow to eliminate any adverse draughts nor temperature change differential as people come and go.

Sean Artess, Arterior Solutions director, commented: "The senior team at CBRE Liverpool describe the relocation as a seismic move, creating a new space that is a joy to

work in. It was essential to us at Arterior that we fulfilled that dream, in every detail. The relationship we have with Gilberts made them the obvious choice for the ventilation supply and extract: we know Gilberts can be relied upon to deliver the style and quality we wanted."

The new CBRE offices are the latest in Gilberts' portfolio of high-end commercial projects, including Google's London headquarters, HMRC's Liverpool offices, Rabobank's LEED Gold premises in Dublin, and the BREEAM Excellent-rated The Lumen in Newcastle's Helix Innovation Quarter and 103 Colmore Row in Birmingham.

01253 766911 info@gilbertsblackpool.com

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BUILDING INSIGHTS LIVE

Always looking for new ways to engage with our audience, *adf* now hosts round table events. With constant updates to building regulations, round tables are an ideal way to gauge industry concerns/problems, to future-proof your marketing strategy. Hosted by our Editor, James Parker, we ask a diverse selection of our readers to attend, providing us with insights across the full spectrum of our audience. Sponsoring a round table enables you to position your brand/company as a voice of authority within the industry.

INSIGHTS.NETMAGMEDIA.CO.UK/ROUND-TABLES

BAL celebrates DOUBLE success at TTA Awards 2025!

BAL are celebrating after winning Best Innovation at this year's Tile Association (TTA) Awards and also scooping the Best Environmental Initiative as part of ARDEX Group UK. The TTA Awards 2025 took place at The Hilton Metropole on Friday 16th May and were themed "Celebrating Excellence" – recognising the best of the best in the tiling industry.

"Best Innovation 2025" was won by BAL Micromax Grout-Effect Sealant, which was recognised by judges and a public vote as the most innovative tiling product (or service) of the last year.

Launched in July last year, BAL Micromax Grout-Effect Sealant is a unique matt-effect sealant that matches BAL Micromax3 ECO Grout and BAL Absolute Grout in colour AND texture. It provides fixers with a sealant that can be used for seamless perimeter and soft movement joints, internal and external corners, without standing out from the grout joints.

It has proved a great success, with BAL Micromax Grout-Effect Sealant completely replacing the old "shiny" traditional technologies of BAL sealants in distribution partners.

The first of its kind for the UK tiling sector the product is a solution for seamless joints with thousands of users across the UK choosing the product as the finishing sealant of choice, and the one that clients can rely on for perfect results that last.

ARDEX Group UK also took home "Best Environmental Initiative" for the Group's Building Tomorrow initiative – with with a commitment to being fully Carbon Neutral by 2045 and being Carbon Neutral for Scope 1 & 2 emissions by 2030.

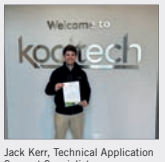
The UK Group, consisting of ARDEX UK and Building Adhesives Ltd, has crafted and part-implemented a Sustainability Roadmap to ensure that the UK business achieves these goals through a wide range of initiatives including sustainable sourcing of materials, recycling, waste reduction, extended product life-cycles, energy efficiency and sustainable energy sourcing and sustainable work-place practices.

Further success came later in the evening as tiling contractors Elite Tiling Ltd won Best Commercial Large (over 250 m²) – Hospitality and Leisure) for Cozenton Sports Centre in Rainham, Kent which used a full ARDEX pool solution.

All categories were decided through a combination of a public vote and an expert judging panel.

01782 591100 www.bal-adhesives.com

Kooltech, gains MCS ASHP Design Certification



Jack Kerr, Technical Application Support Specialist

Kooltech underscores its commitment to high-quality support for sustainable heating by gaining the MCS Design Certification for Air Source Heat Pumps to MIS3005/D. This alongside Oftec Registered Renewable Heating Business, reinforces their leadership in heating and hot water solutions. The certification extends Kooltech's established expertise in delivering decarbonisation and sustainability heat pump projects within the commercial and public sectors. MCS extends this capability to the domestic and light commercial markets, demonstrating the depth of Kooltech's in-house knowledge and skillset.

0345 034 4179 www.kooltech.co.uk

Valcan specified in BSR-approved projects

Valcan is proud to announce that its rainscreen cladding products have been specified in a significant amount of the projects approved by the Building Safety Regulator (BSR). This achievement highlights Valcan's commitment to quality, safety, and compliance with the Building Safety Act 2022. Gateway Two, a critical stage in the approval process, involves rigorous inspection of building regulations before construction begins. Valcan's products have successfully navigated this rigorous process due to their superior quality, innovative design, and adherence to the highest safety standards.

01278 428245 www.valcan.co.uk

BEWI achieves NHBC-acceptance for its Jackodur® Atlas foundation system!

Following hot on the heels of the NHBC accepting BEWI's Thermomur® insulating concrete formwork (ICF) system, the company is excited to announce that NHBC now also accepts BEWI's Jackodur® Atlas Foundation System. Gaining NHBC accreditation means that the Jackodur® Atlas extruded polystyrene (XPS) foam foundation system has been rigorously assessed and meets NHBC's robust standards. This accreditation complements both BBA and Passivhaus approvals, further demonstrating that Jackodur® Atlas is a leading building system known for its high performance. Jackodur® Atlas is ideal for use alongside Thermomur® ICF and also works very well with timber frame and traditional building methods, helping to meet all project requirements. Jackodur® Atlas is an intelligent, efficient thermal insulation and formwork system for floor slabs. It is an innovative system incorporating an interlocking design that skilfully eliminates thermal bridges, ensuring superior thermal performance. It features robust compressive strength properties, providing stability and reliability for building projects.

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CUPACLAD® crowns Whiteleys redevelopment

CUPA PIZARRAS' CUPACLAD® 101 Logic natural slate rainscreen cladding system has been specified for the redevelopment of Whiteleys department store in London. The timeless aesthetic and A1 fire resistance delivered by the natural slate, provided the ideal solution for the project's extensive new mansard roof. The project, led by Fosters + Partners, aims to restore the former glory of the London landmark by preserving the Art Deco elements of the original design, whilst providing modern facilities and amenities. Sustainability was an important element of the project, with the design team aiming to achieve a BREEAM rating of 'Excellent'. The environmental credentials of CUPACLAD® contribute significantly to this goal. Unlike other facade materials, no heat or chemicals are applied at any point during the production process and natural slate has a potential lifespan of over a century. As a result, the environmental impact of slate is considerably lower than other cladding materials. CUPA PIZARRAS has in fact already achieved Net Zero certification, EcoVadis Gold Medal and BRE Global verification of its EPD.

020 3318 4455 www.cupapizarras.com/uk

Senior Architectural Systems unveils its new SPD150 commercial door

Senior Architectural Systems is opening up new opportunities in the commercial market thanks to the launch of its new SPD150 aluminium door system. The SPD150 commercial door system has been specifically developed to meet the demands of high-traffic commercial environments where accessibility, performance, and durability are key. Developed as a non-rebated door and framing system, the SPD150 can be fabricated as single or double doors, with various configuration options such as emergency exit versions and anti-finger trap stiles. One of its key advantages is its low threshold design which provides easier access for wheelchair users and reduces the risk of trips, helping to create a more inclusive design in communal spaces. The use of low thresholds can also contribute to a more streamlined interior design, providing a seamless transition to outdoor spaces and making the new SPD150 commercial door suitable for use across a variety of sectors including healthcare, education, office schemes, and other public use buildings. For architects and specifiers seeking a clean, modern aesthetic, the SPD150 system also supports the integration of concealed closers and hardware.

01709 772600 www.seniorarchitectural.co.uk

TORMAX upgrades access to Nottingham University Sports Village

Working directly with Nottingham University, **TORMAX** recently completed a new automatic entrance into the David Ross Sports Village. This popular facility experiences high levels of pedestrian traffic so TORMAX recommended their robust, technologically advanced iMotion 2202. A door drives to automate the two sets of bi-parting sliding glass doors. Offering a complete package from door design, manufacture and installation, TORMAX also has an in-house team of qualified service engineers covering the UK. With a Planned Maintenance Contract in place, the new Sports Village entrance will benefit from timely servicing throughout the year, minimising unscheduled downtime. "TORMAX iMotion drives set the industry standard for longevity," confirms TORMAX MD, Simon Roberts. "Even a busy entrance such as this, with appropriate servicing, the doors can deliver reliable performance for up to 25 years or more. "A comprehensive service call-out can quickly pick up any potential problems, avoiding long-term damage to the system whilst also providing timely maintenance to maximise the performance of key mechanisms."

sales@tormax.co.uk

Pedestal expert's one-stop-shop landscaping system

Installers looking to create attractive architectural landscaping elements on roof terraces, balconies and podium decks can now source the complete system, from sub-structure through to planters/seating. **Wallbarn** has developed the new Permeate system in conjunction with Bespoke Metal Planters. Permeate is a versatile hard/soft landscaping system encompassing all elements required to deliver strong, long-lasting, super flat paved or decked spaces with seating and planters. The partnership enables contractors to deliver complete systems, from pedestals to premium fire-rated decking and paving options to planters and cantilevered or floating seating elements; it's a one-stop-shop facilitating easier ordering and perfectly timed deliveries. Wallbarn also offers an estimating service to assist with project planning and budgeting. At the heart of Permeate is Wallbarn's robust sub-floor system with the addition of galvanised steel floor trays which slot between the sub-structure's aluminium joists. The joists are supported by Wallbarn's MetalPad Ex pedestals, Class A fire-rated with a weight tolerance exceeding five tonnes per pedestal.

020 8916 2222 www.wallbarn.com/substructure/permeate-planter-system

Unique facade for property developer

Impress with surprising choices and stylish combinations? Arteco does the trick. The property developer showed off its skills in the French town of Saint-Nazaire, flanked by the surging Loire. The impressive facade is dominated by the Linius facade cladding from Renson. The invisible screens ensure pleasant indoor temperatures.

The Arteco house in Saint-Nazaire, in Loire-Atlantique, is a conceptual building. "This local branch is about 200 square metres," explains branch manager Mickaël Euzenat. "For this project, we relied on suppliers of high-quality and utilised special products, such as external insulation, innovative heating systems, and Renson's aluminium facade cladding."

High-end concept with refined materials

The 'out the box' building combines a domestic exterior with an office interior. Aesthetics and practical added value come together in a selection of refined materials. "The principle of a high-end concept, but in a homey atmosphere," emphasises Mickaël. "Customers can see the products here in a different way. And our ideal geographical location called for a real eyecatcher."

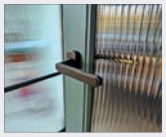
Instead of traditional wooden or aluminium cassettes as facade cladding, the architects opted for blades, for external insulation and to really draw attention. The horizontal aluminium Linius blades – resistant to the salty sea air – create unique and fascinating shadow effects. The white facade cladding on the first floor is a nice contrast to the Linius blades on the ground floor.

Lessons from the past

Renson was also the point of contact for efficient and windproof (up to 130 km/h) sun protection, a practical choice with no impact on the facade appearance, despite the thick layer of insulation. In opting for blinds, Arteco drew lessons from the past. A branch in Lorient, built in 2007 without sun protection, quickly ran into an overheating problem and needed active cooling. The Fixscreens prevent the same scenario in Saint-Nazaire. All whilst maintaining the sleek architecture.

www.renson.net

Timeless elegance from Steel Window Fittings



Steel Window Fittings, a member of the **Steel Window Association** has launched the 1080 and 1090 door levers which are available on all SWF backplates. The elegant 'lever-lever' door handle, which can be secured in both horizontal and vertical position, conceals the fixing screws and is available with different lever styles. The ironmongery is available in several finishes – Satin Chrome, Dark Bronze, Gun Metal, Antique Black, Antique Brass and Oil Rubbed Bronze – and specific RAL colours on request, along with matching window furniture. Pictured is the oblong B1090 in Oil Rubbed Bronze.

steel-window-association.co.uk

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Wraptite® converts property developer to benefits of external airtightness layer

A property developer has seen immediate benefits from using the **A. Proctor Group's** external air barrier solution, Wraptite®. So good were the results of the airtightness testing at the property that the testing company thought their equipment was broken and needed recalibrating! Chris Boyes has been developing timber framed properties on small sites since he was 21. His usual approach has been to create the airtightness line on the internal face of the building structure. This latest development saw him experiment with moving the airtightness line to the external face of the structure, applying Wraptite membrane to the walls and roof. The Scalby Road property features a 140 mm timber stud, filled with insulation. To the outside of the stud is a sheathing board, another 50 mm of rigid insulation, and the Wraptite membrane. The walls were then finished with cladding or a rendered board on battens. The Wraptite membrane continued from the walls to the pitched roof, which was finished in a metal standing seam system. Wrapping the whole building – first in insulation, and then in Wraptite – helped to reduce thermal bridging and deliver a better standard of airtightness.

01250 872 261 proctorgroup.com/products/wraptite

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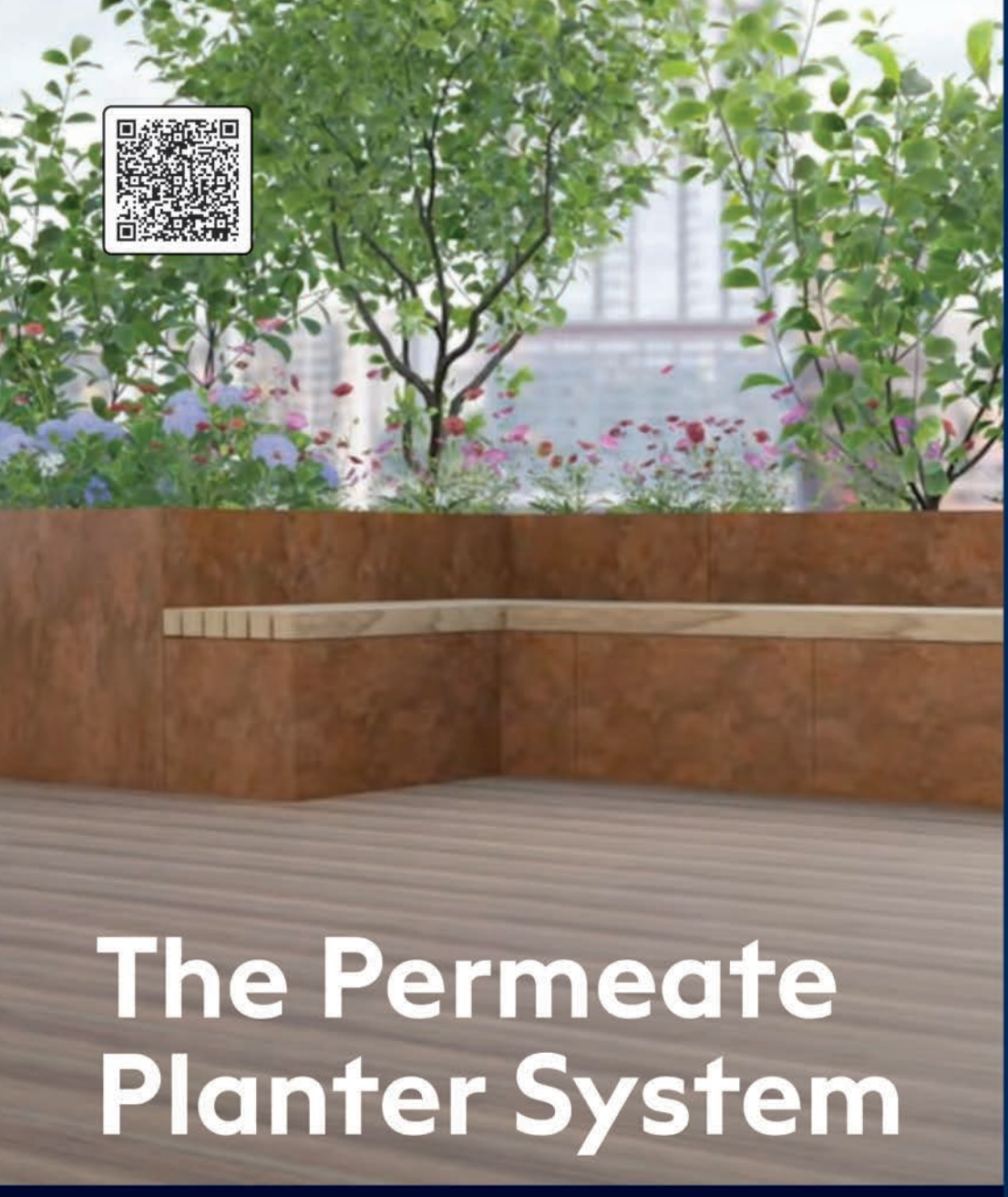

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A higher bar for glass safety in high rise balconies

Andy Lake of Pyroguard explains the impact of the latest Building Regulations & fire safety legislation updates on glazed balconies for high rise buildings.

In recent years, fire safety regulations in the construction industry have undergone significant changes, following the Grenfell Tower fire and the Government's independent review of the tragedy, which examined Building Regulations and related compliance focusing on multi-occupancy high-rise residential developments.

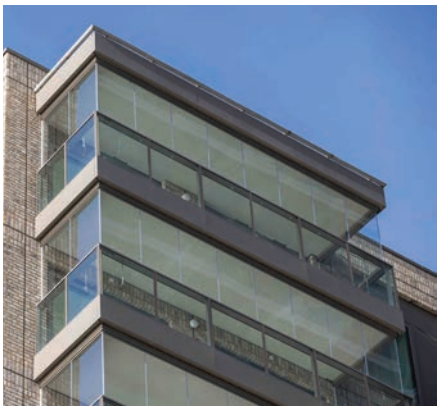
This comprehensive review led to significant amendments to Approved Document B in 2020, 2022, 2025 and further amendments are expected in 2026 and 2029. In 2020, Building Regulations introduced a ban on the use of combustible materials in and on the external walls of buildings, which included preventing the use of certain types of laminated glass – those with PVB (polyvinyl butyral) interlayers – on high-rise balconies or terraces over 18 metres tall. This regulation was revised in 2022 to lower the threshold to 11 metres, reflecting an even more stringent approach to fire safety.

The Building Safety Act 2022 introduced additional measures aimed at improving the safety of high-rise buildings' designs. This legislation placed greater accountability on architects and developers, giving them responsibility for ensuring compliance with fire safety regulations throughout the building's lifecycle.

In March 2025 Approved Document B was further updated to remove all

The evolution of fire safety regulations has brought about significant changes in the way glass is specified for high-rise balconies

Glass is an extremely popular choice of material for high rise balustrading



references to the British Standard 'reaction to fire' test. The target is to remove any confusion caused by operating a dual BS and EN system.

Implications for the industry

These regulatory changes have posed significant challenges for manufacturers, architects and developers. In particular, the need to balance safety with aesthetic considerations has made the specification of materials for high-rise balconies increasingly difficult.

This was exacerbated when laminated glass with PVB interlayer was no longer allowed to be used above 11 metres – because it may present a danger of spreading fire through a building.

As glass is an extremely popular choice of material for high rise balustrading, due to its contemporary appearance and aesthetics, the regulations have meant a need for building designers to carefully consider the options.

Monolithic glass vs laminated glass

Despite the guidance on changes to the regulations, there are still misunderstandings about the use of monolithic versus laminated glass for high-rise balconies.

Monolithic glass, also known as single-pane glass, has traditionally been used in many glazing applications including high-rise balconies. However, this type of glass can present safety risks, particularly in high-rise settings. One of the main concerns is the risk of it spontaneously breaking, which can lead to significant hazards for both occupants and pedestrians on the street, as fragments have been known to fall from height.

Another disadvantage is that once broken, monolithic glass does not provide a failsafe barrier, increasing the risk of falls from a balcony.

Polymer bonded laminated glass

In contrast to monolithic, polymer bonded laminated glass consists of multiple layers. This construction provides enhanced safety features, including the fact that in the event of breakage, the interlayer holds the glass together, preventing shards from falling and maintaining a barrier, therefore providing a higher level of safety. As laminated glass is designed to withstand high mechanical stresses, this makes it less likely to break under pressure. This type of laminate is unlikely to meet the European A2 reaction to fire classification required by Approved Document B.

In response to the evolving regulatory landscape, we introduced a laminated glass solution that utilises non-flammable gel interlayers, with the aim being to replace the polymer bonded laminate glass.

The product is a patented safety glass for balustrade and balcony applications, designed to re-establish laminated glass as an exterior design solution for these applications. This balustrade glass utilises an intumescent gel interlayer that makes it inherently non-combustible and therefore compliant with the changes to the Building Regulations and Document B. It has been developed to offer the durability and safety features of traditional laminated glass, while complying with latest Regulations.

After coming up with a proposed design solution, this then led to physical tests being performed for each component of the framing system and our fire safety glass at a third-party UKAS accredited testing facility in the UK.

This new type of laminated glass has been tested and approved with several market leading balustrade frame systems receiving a test classification of A2 from the notified laboratories Applus and Warringtonfire.

New developments in glass technology

Integrating the non-combustible engineered gel interlayer makes the system an appropriate choice for high-rise developments. This balustrade system has been successfully used in various high-profile projects, including residential developments like Deanston Wharf in London and Quantock House in Somerset. These projects showcase the potential for integrating glass into high-rise designs without compromising safety.

The future of high-rise balconies

The evolution of fire safety regulations has brought about significant changes in the way glass is specified for high-rise balconies.

While the debate about monolithic versus laminated glass continues, the introduction of non-combustible laminated glass solutions is compelling to ensure safety and aesthetic excellence in high-rise balcony construction.

Andy Lake is UK & Ireland sales director at Pyroguard

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Bradite transformation makes store exterior best on the market

Thanks to the innovative use of Bradite's One Can at a local estate agents' property, a Manchester firm of decorators have labelled One Can their 'go-to exterior paint'.

Heritage Decorators was engaged by Empire Joinery to paint a new shopfront for local estate agents 'Ashworth Holme' in the town centre of Sale, Cheshire.

The prominent building, dating from 1921, was refurbished with the replacement of deteriorated signage, windows and entranceway. The client requested a traditional shop frontage that would complement the building's architectural style.

"Originally", explains Heritage Decorators' Oliver Brigham-Bowes, "we specified the job with an old-school approach in mind, using traditional methods of aluminium primer and oil-based primers/undercoats and oil-based external topcoats."

But the spec changed after a trip to a decorators' merchants in Altrincham,

and a discussion about potential weather problems using oil-based products as winter came closer, due to their slow drying times. They concluded that a water-based product that offers a speedy drying time without compromising on durability would be highly preferable.

"They recommended Bradite One Can due to its high adhesion, tannin blocking capability and multiple finish and colour options", says Oliver. Bradite One Can is touch dry in 30 minutes, with recoats possible after one hour, making it ideal for exterior painting projects.

He admits: "I have always been dubious to use a paint that says it does everything but, even after our first coat, I could tell that there was something different about the science behind this all-in-one product. Not only did it key to bare and pre-painted timber, cover extremely well and dry quickly, but it left a finish that the customer was overjoyed with."

The completed job provides a sleek, excellent first impression to people seeking the services of the estate agents.

Oliver adds: "This paint delivered beyond our expectations. Thanks to Bradite for helping us achieve such a great finish with ease – we will now be using it as our go-to external paint."

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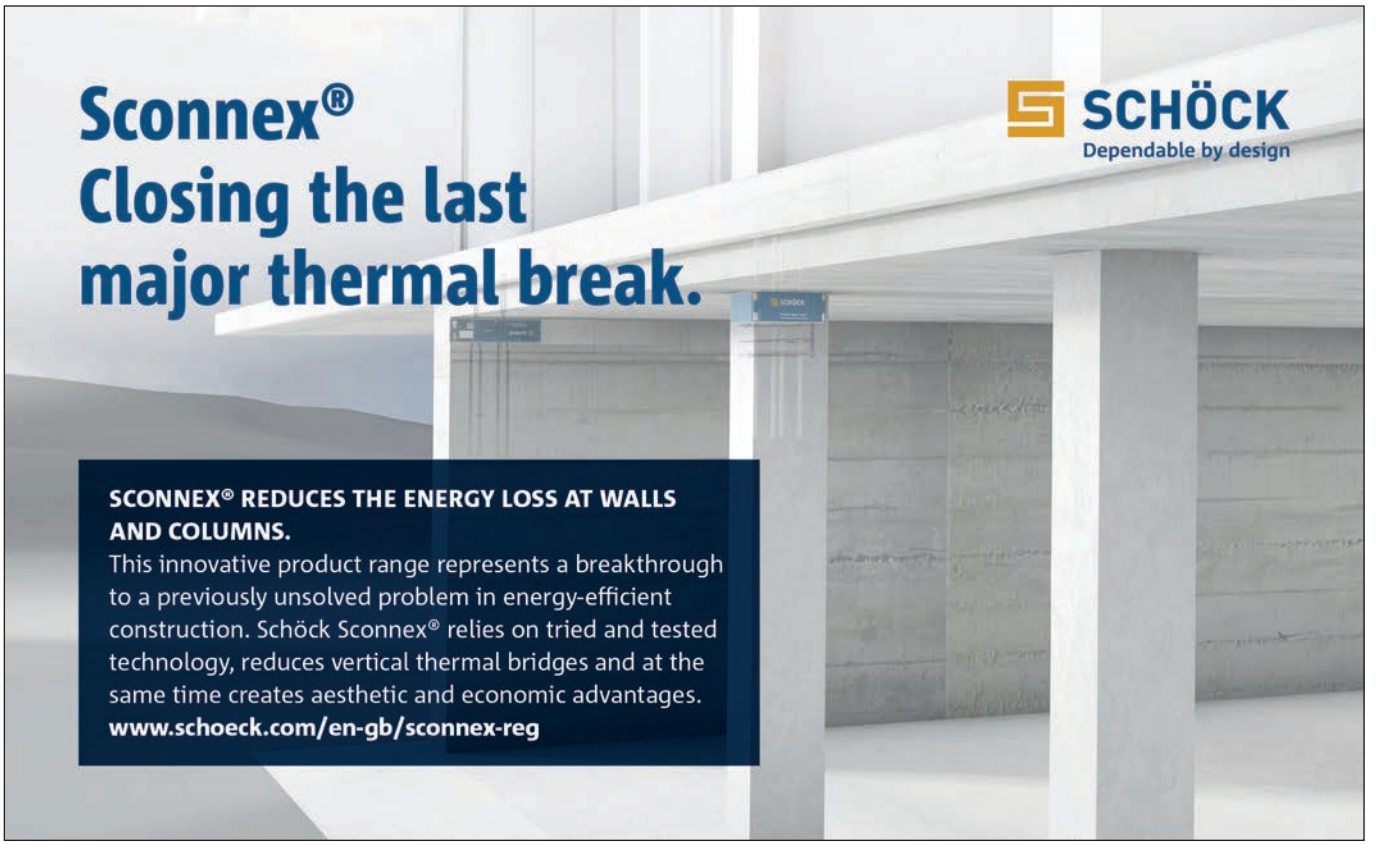
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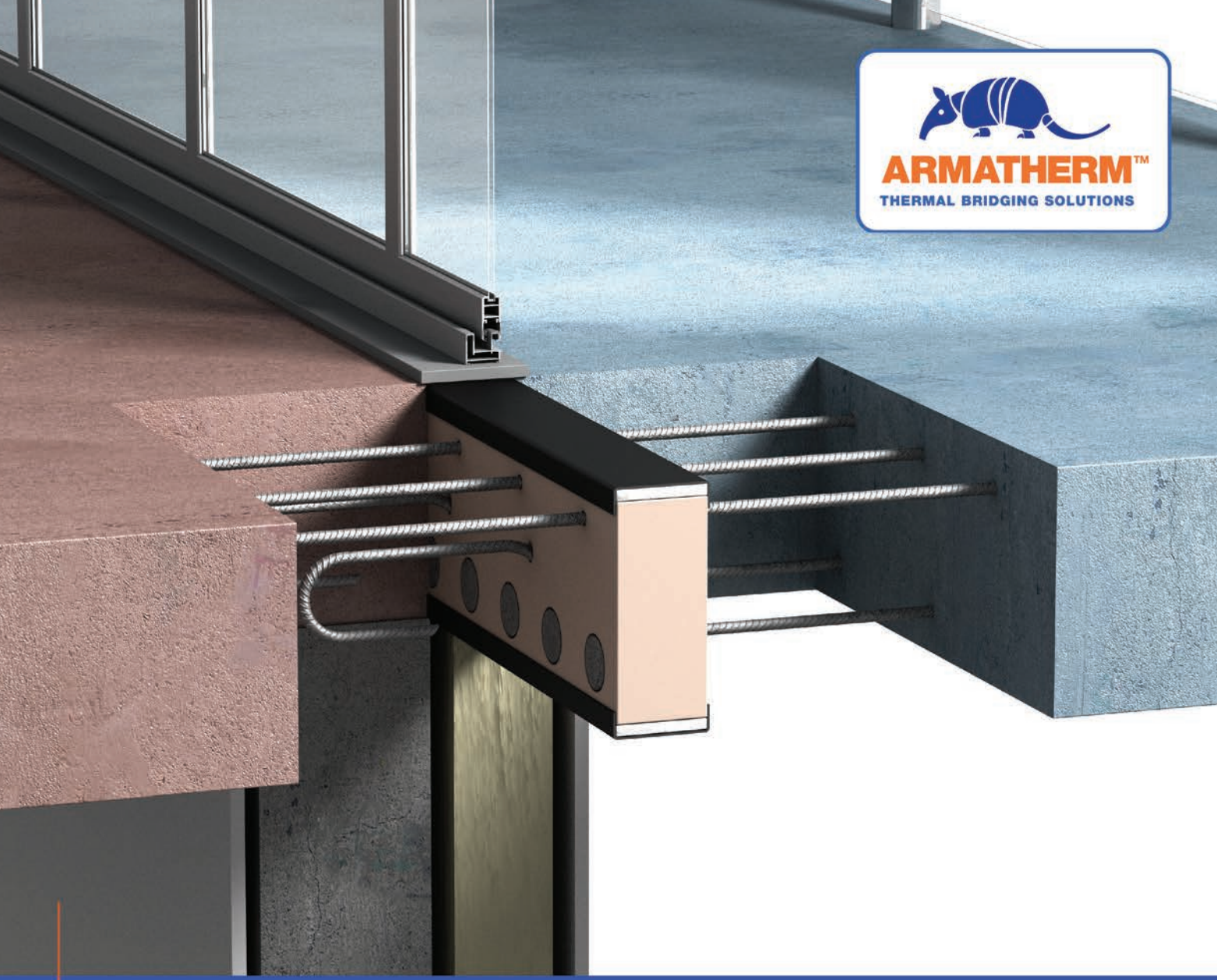

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Glidevale Protect unveils its new fire rated internal membrane – Protect FrameFoil FR

Leading UK producer Glidevale Protect has launched Protect FrameFoil FR, a new Class A2 fire rated, reflective air and vapour control layer (AVCL) and separate FR sealing tape designed to improve the thermal performance and airtightness of internal walls, ceilings, and floors. The new solution has been developed to work alongside Glidevale Protect's established A2 rated FrameSafe FR external breather wall membranes to offer a complete system both inside and out for low, medium and high rise projects. This offers added protection for structures, particularly in high risk, multi occupancy builds over 11m in height, specifically those covered by the Building Safety Act. The product is ideal for modular and offsite construction as well as traditional builds in both the residential and commercial sectors.

Designed for use internally across steel, masonry, and timber-framed structures, Protect FrameFoil FR is best installed as a system where the membrane laps are sealed with new Protect FR Foil tape to deliver a fully fire rated, airtight and vapour control solution. This membrane and tape system has been independently fire tested both with the membrane free hanging and as a system application fixed over A1 and A2 substrates, achieving a Class A2-s1, d0 reaction to fire rating. Using the combination of Glidevale Protect's fire rated wall membranes exceeds the requirements set down in Building Regulations Approved Document B in the UK and Building Regulations Technical Guidance Document B in Ireland.

Featuring a woven, glass fibre construction with an aluminium foil surface, FrameFoil FR enhances thermal efficiency, achieving an aged thermal resistance (R-value) of 0.64 m²K/W when used facing into a still air cavity, contributing to overall energy performance.

To find out more and request independent fire test reports for Glidevale Protect's fire rated membranes, visit the website, call or email technical@glidevaleprotect.com. Follow Glidevale Protect on LinkedIn.

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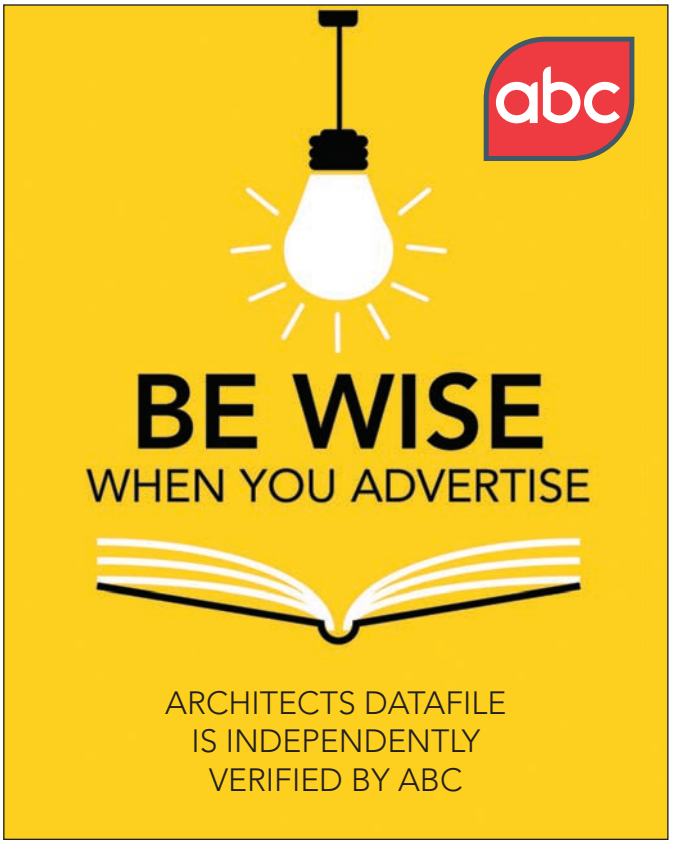

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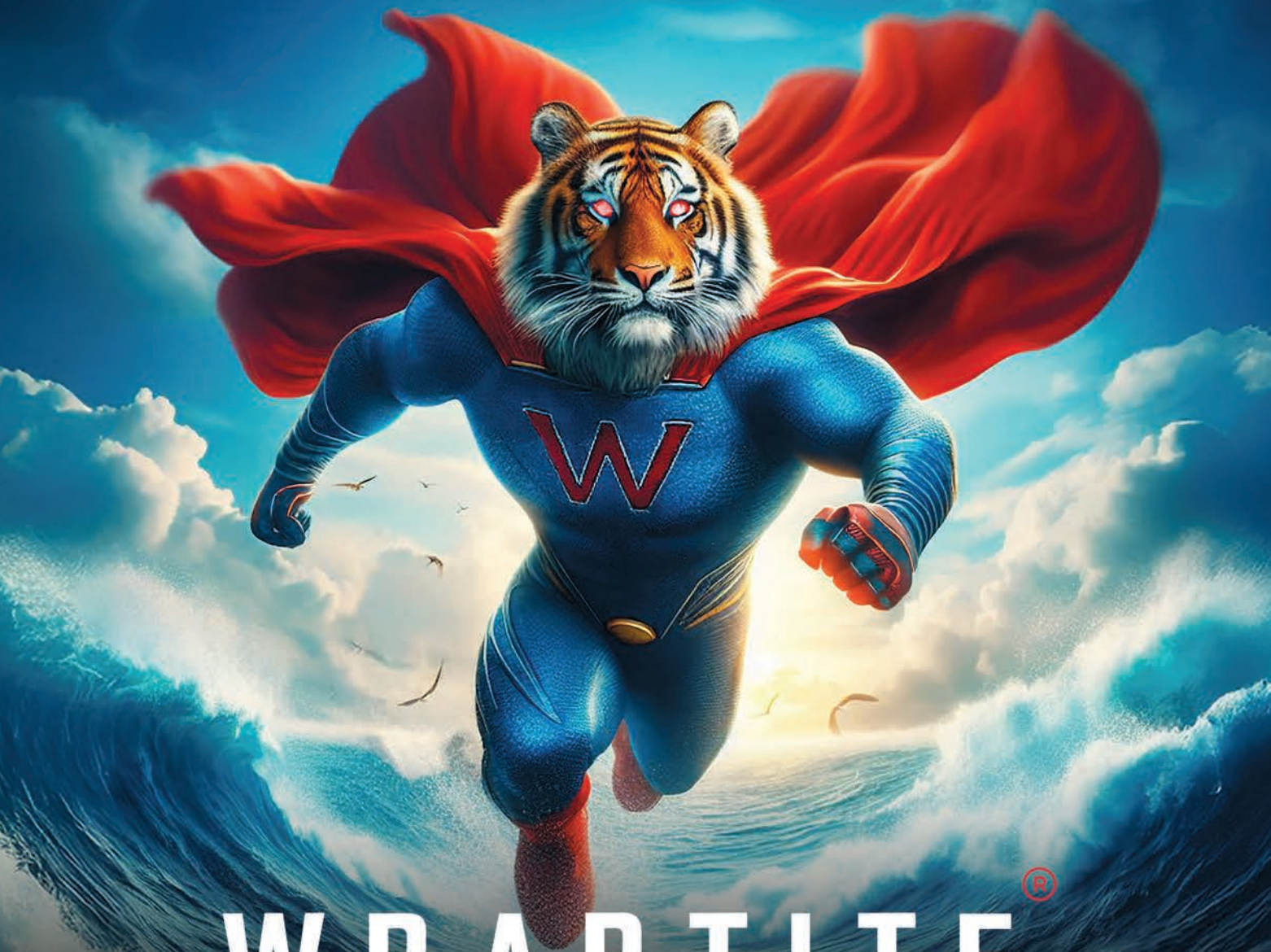

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Proctor Air®: One year on

May 2025 marks one year since the A. Proctor Group's air permeable pitched roof underlay, Proctor Air®, was awarded its BBA certificate.

Developed based on feedback from designers, specifiers and installers – and combined with the Group's quarter of a century at the forefront of pitched roof membrane technology – Proctor Air is helping to shape best practice in the UK pitched roofing sector.

As an air permeable, low-resistance (APLR) pitched roof underlay, Proctor Air simplifies pitched roof constructions. It is one of the highest performing membranes on the market, allowing moisture vapour to escape the roof space and reducing condensation risk. Its air permeability means no ventilation measures are required in warm, cold or room in the roof constructions. It also achieves a W1 resistance to water penetration classification and a minimum of 1m hydrostatic head.

In its first year, Proctor Air has been widely adopted by the UK pitched roof sector. Notable projects include Hatchmeadow apartments in Northumberland, where it featured in a 2500 m^2 replacement roofing system.

Proctor Air helped to protect residents during the work, as the building remained occupied throughout. The completed system stopped leaks that had previously affected some of the apartments.

It has also been used on the prestigious £325m renovation of Manchester Town Hall, which is one of the biggest heritage projects in the UK. The historic roof features many intricate details with limited opportunities to provide modern roof ventilation. Installing Proctor Air meant separate roof ventilation was not required, and there will be no 'dead zones' of restricted air movement in the complex roof.

An eye-catching advertising campaign positioned Proctor Air as "the air to the throne" throughout 2024. A triumphant night at December's Construction Marketing Awards (CMAs) saw judges name the A. Proctor Group as winner in both the Best Product Launch category and the Best Advertising Campaign category.

Looking ahead to the rest of 2025, the A. Proctor Group continues to support specifiers and installers in adopting air permeable membranes.

Forthcoming developments include new technical guidance on using Proctor Air with in-line solar PV panels.

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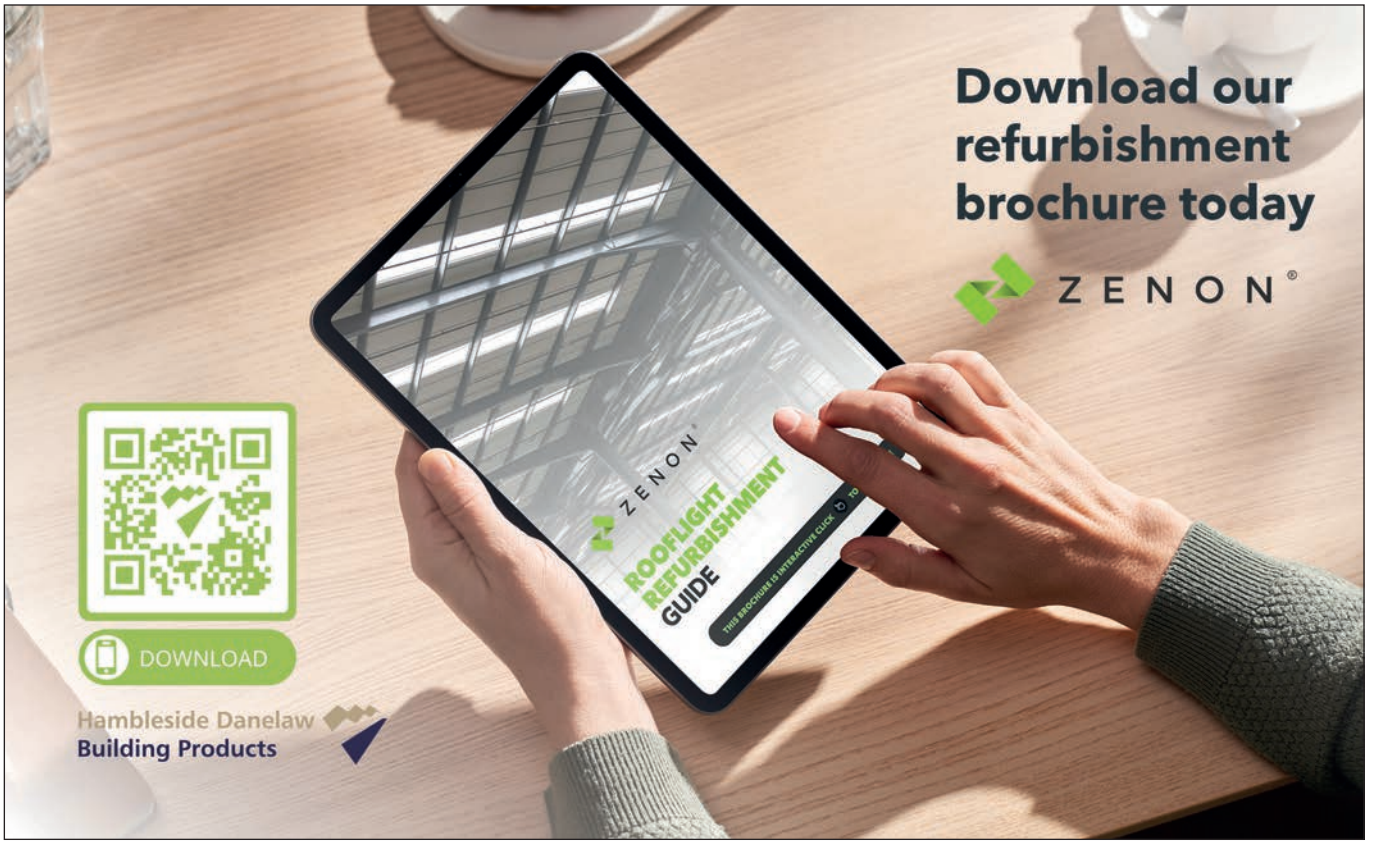
proctorgroup.com/products/proctor-air



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Brighten up living spaces with new pyramid roof lantern

Brett Martin has introduced a new addition to its glass rooflight range, the Pyramid Roof Lantern. This square, four-pane solution is available in both standard and bespoke sizes. With an attractive slimline profile, the new Pyramid Roof Lantern allows focused even light to penetrate buildings, creating a striking focal point in any desired space. The Pyramid Roof Lantern's four standard sizes range from 1,000 mm x 1,000 mm, up to 2,500 mm x 2,500 mm, with a lead time of just three to five days. The new addition adds to the existing range of four and six-pane rectangular roof lanterns as well as square, rectangular and circular flat glass rooflights, all of which are available with combinations of white, black or grey frames, inside and out. The glass can also be specified, with the options for clear or solar-control blue glass available for reduced solar gain and decreased internal temperature spikes. As with the other products in the Brett Martin range, the Pyramid Roof Lantern is double glazed and complies with the guidance from the Rooflight Association which recommends that a laminated inner pane should be the first choice for safety when specifying overhead glazing.

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New Modular Highline 275 Range

Diffusion officially launched its new Highline 275 Modular Fan Coil range to its customers. Developed to create the perfect indoor environment at work and home. Providing airflows up to 514 l/s, the new higher-capacity Highline 275 units will ensure that even large-scale spaces can benefit from the range's unique modular design. Designed with compact dimensions, the Highline 275 range features advanced components that deliver low sound levels, reduced energy consumption, and optimal performance.

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Futureproof by design

Chris Stammers of the BEAMA's Underfloor Heating Group explores the key benefits and latest research around low temperature heat emitters, and how they can support specification choices that futureproof residential projects.

With the Future Homes and Buildings Standard (FHS) due to come into effect soon, architects working on residential dwellings are under growing pressure to design heating systems that are not only energy efficient, but which are also compliant with increasingly stringent regulations. One of the most effective ways to meet these low-carbon objectives, whether in new-build housing or large-scale refurbishments, is by integrating underfloor heating (UFH) with air source heat pumps (ASHP).

As of June 2022, the revised Part L of the Building Regulations has placed firm requirements on all new residential buildings to reduce carbon emissions by at least 31% compared to the previous benchmark. This also applies to extensions and significant renovations under Part L1B. Central to these regulations is the move towards low-temperature heating systems, now capped at a maximum flow temperature of 55°C. Designers must also provide a Building Regulations England Part L (BREL) report with photographic evidence demonstrating compliance, underlining the need for thorough planning.

A natural fit: UFH & ASHP

ASHPs are fast becoming the preferred low-carbon heat source for UK homes, particularly when integrated into well-designed UFH systems. The compatibility is straightforward: UFH systems operate efficiently at lower flow temperatures, often as low as 35°C, which supports ASHP in achieving a higher Coefficient of Performance (CoP), maximising energy efficiency and cost savings. Compared to radiator-based fossil-fuelled systems, the combination of ASHP and UFH can deliver much greater efficiency, making it a key strategy for net zero building targets.

Recent research from Salford University's Energy House 2.0 project demonstrated that hydronic underfloor heating excels at maintaining consistent temperatures throughout each zone. The study recorded minimal temperature variation, only 0.8°C at -5°C and 0.7°C at +5°C when operated using a standard SAP heating pattern. Traditional radiators showed a minimum variation of 2.2°C, while other systems displayed differences of up to 4°C. Even greater consistency was achieved when UFH was running continuously.

These results also emphasise UFH's advantage when combined with air source

Recent research data from Energy House 2.0 demonstrated that hydronic UFH excels at maintaining constant temperatures

While new-build projects offer a clean slate, architects must also consider how heating systems can be retrofitted to accommodate heat pump technology in existing homes

heat pumps, delivering efficient, evenly distributed heat throughout the home. The low temperature radiant heating method boosts energy performance, enhances long-term occupant comfort, and assists in meeting low-carbon building standards.

Designing for retrofit readiness

While new-build projects offer a 'clean slate,' architects must also consider how heating systems can be retrofitted to accommodate heat pump technology in existing homes. This is where UFH provides a major advantage. A well-designed UFH system with appropriately spaced pipe centres and increased pipe diameters (e.g. 17 mm over 12 mm) can futureproof a property for a heat pump upgrade, ensuring optimal output at lower temperatures.

Low-profile systems offer a practical solution for retrofits or extensions where screeded systems aren't feasible. These systems allow minimal floor build-up, often less than 20 mm, making them ideal for older properties where ceiling heights or door thresholds are a constraint.

Going beyond completion

While operational efficiency is a cornerstone of regulatory compliance, embodied carbon is increasingly part of the sustainability conversation. According to Government-backed studies, modern UFH systems have a significantly lower embodied carbon footprint than radiator systems, up to 93% less. PE-RT (polyethylene of raised temperature resistance) pipe used in many UFH systems has a long lifespan. It can be safely recycled, making it both durable and environmentally responsible.

Partnering for performance & comfort

Precision system design is essential to ensure that UFH systems deliver the required heat output while meeting project-specific criteria. Working with a reputable supplier that can support CAD layouts, heat loss and heat output calculations, controls integration, and commissioning advice is crucial. This ensures that all elements, from flow temperatures to zoning, are designed with compliance and long-term performance in mind.

Radiant heat from UFH supports energy performance and enhances indoor air quality and occupant wellbeing. Unlike convected heat from traditional systems, which can stir up dust and allergens, UFH delivers even warmth across the entire floor surface with minimal air movement. This reduces the spread of airborne particles and can help lessen symptoms for allergy and asthma sufferers. It also provides a more consistent thermal gradient, with the warmest temperatures at floor level, exactly where it's needed most.

In a fast-changing regulatory landscape, architects must specify heating systems that offer end users efficiency and comfort in equal measure. Underfloor heating is proven to strike that balance, particularly when paired with ASHPs. It offers a versatile, design-led solution that aligns with the UK's roadmap to net zero and elevates the standard of living in every project.

Chris Stammers is portfolio manager for BEAMA's Underfloor Heating (UFH) Group

Woodburners get the green light

Dik Geurts Bora Corner wood stove

UK government approves continued use of modern, efficient wood burning stoves and fires in new build homes.

DRU is the Netherlands-based manufacturer of Dik Geurts woodburning stoves and fires and the UK distributor of Spartherm wood stoves and fires.

The company is pleased to share some reassuring news for anyone considering a wood burning stove or fire for their new build home.

The UK Government has confirmed that, under the proposed Future Homes Standard, people in new build properties can continue to install and use modern, efficient wood burning appliances.

This important clarification, prompted by strong industry representation led by the Stove Industry Association (SIA), means that wood burning stoves will remain a part of the UK's future housing landscape as an important source of low-carbon, sustainable heating.

Modern wood stoves are not only highly efficient and low in emissions, but they also provide flexible, reliable heat, even during power outages.

With an Ecodesign compliant stove, using properly prepared wood and responsible burning practices, homeowners can enjoy all the benefits of real wood fires. They will also have complete peace of mind that their wood stove or fire can be used for the foreseeable future.

Commenting on the ruling, DRU UK general manager Niall Deiraniya said: "We are delighted that the government has given the green light to woodburning in new homes. This sensible decision is good for the wood stove industry and good for consumers and will greatly enhance the choice of green energy options available to new home buyers."

info@drufire.co.uk
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Dik Geurts Vidar Triple wood stove

Declaring an interest in hitting lower carbon goals

Neil Turner of Ecological Building Systems explores how Environmental Product Declarations are helping the construction industry move towards its goals of low carbon building, by providing verified information on environmental impact.

The UK construction industry is working towards achieving net zero by 2050. Meeting this goal requires a fundamental shift to low carbon materials and sustainable building design, as the government has set a target of 100% reduction in greenhouse gas emissions, compared to 1990 levels.

As part of supporting this aim, Environmental Product Declarations (EPDs) are becoming a vital tool for architects, builders and specifiers. enabling them to identify products that have certified sustainability credentials.

An EPD is a comprehensive document that provides transparent and verified information about a product's environmental impact, throughout its lifecycle. This includes data on resource consumption, emissions, waste generation and other ecological factors associated with taking a product from raw material extraction to disposal.

EPDs are designed to make it easier for architects, builders and other stakeholders within the construction industry to make choices based on factual – and verified – information. By providing insights into the environmental impacts of materials, EPDs enable professionals to select products that meet specific sustainability criteria, ultimately contributing to greener building practices.

Why EPDs are important

As sustainability becomes increasingly important, EPDs are an essential resource for specifiers and building designers seeking to make informed decisions. They offer verified data that can guide the selection of materials that align with sustainability goals.

One of the key strengths of EPDs is that they assess the environmental impact of a product across its entire lifecycle, from raw material extraction and manufacturing, through operation, to end of life. These assessments are structured into five distinct stages, offering a detailed picture of the product's performance. This starts with production, by evaluating the extraction of raw materials and manufacturing processes; considering the transportation and installation of products on site. The EPD also takes into account the use of materials, by analysing the emissions and resource consumption during the product's

operational life. It also considers end of life disposal, by looking at what happens to the product once it is no longer in use. A key element is evaluating their re-use and recycling potential and assessing their potential for recovery and re-use of materials.

This data is invaluable for architects and builders looking to minimise the carbon footprint of their projects. By selecting materials with lower environmental impacts, they can significantly reduce overall emissions associated with construction.

This whole life analysis enables specifiers to understand the long-term implications of their material choices.

Environmental Product Declarations are therefore becoming increasingly important in the specification of building materials as the construction industry shifts towards greater sustainability.

Standardisation of EPDs

EPDs are developed according to international standards, including ISO 14025 and EN 15804. These standards ensure that the data presented in EPDs is reliable, consistent and comparable across different products and manufacturers. By assessing products based on these standards, EPDs provide a level of transparency that is critical for informed decision-making in the construction sector.

There are two main types of EPDs: product specific EPDs and industry-wide EPDs. Product specific EPDs focus on the environmental impact of a single product or a closely related group of products from one manufacturer. Industry-wide EPDs provide average environmental data for a category of products across multiple manufacturers, reflecting the collective impact of an industry segment.

Each type of EPD is useful in enabling architects and builders to choose the most relevant data for their projects.

Certification schemes

Many green building certification systems, such as BREEAM and LEED, require the use of EPDs as part of their assessment criteria. By integrating EPDs into their material selection process, specifiers can enhance their projects' chances of achieving certification; this is something which is increasingly important in today's environmentally conscious market.

Meeting carbon reduction targets

With global initiatives aimed at reducing carbon emissions, EPDs play a crucial role in helping the construction industry to meet these targets. By providing data on the carbon footprint of building materials, EPDs enable stakeholders to make choices that contribute to a low carbon or zero carbon build.

Sustainable construction

When it comes to specifying insulation, EPDs are an excellent source of verified information on environmental credentials. Some natural insulation products such as sustainable grass insulation and wood fibre insulation have achieved EPDs.

In addition, some airtightness and windtightness products including membranes, tapes and glue have recently secured EPD certification for a wide range of its airtightness and windtightness products including membranes, tapes and glue.

As the construction industry moves further towards net zero, the demand for transparency in product sourcing and environmental impact is set to increase – and this is where natural building materials which have secured EPDs offer a compelling choice.

With increasing numbers of architects specifying products with EPD certification, there is an important move towards achieving higher sustainability standards.

Neil Turner is technical sales manager for Ecological Building Systems

As the construction industry moves further towards net zero, the demand for transparency in product sourcing and environmental impact is set to increase

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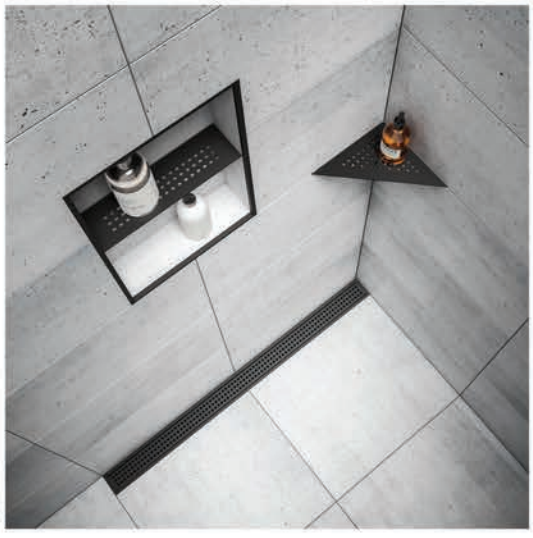

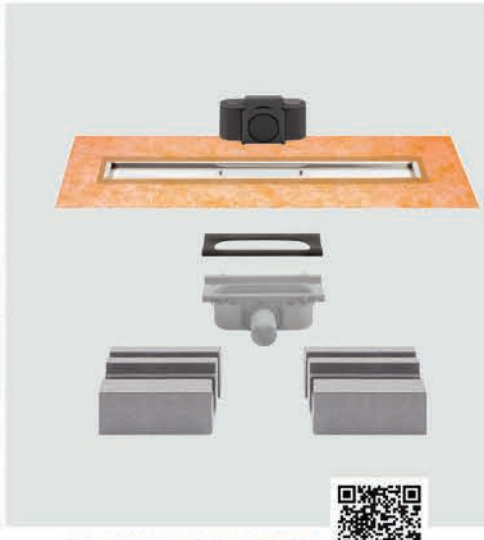

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Connecting the dots

Tom Reynolds of the Bathroom Manufacturers Association explains why joined-up thinking in bathroom design is vital, and how collaboration across the sector can drive innovation, sustainability, and smarter regulation.

It may be a small space in the grand scheme of a building project, but behind every bath, basin, and bracket lies a vast, intricate network of individuals and businesses. From clients and architects to manufacturers, merchants, plumbers, and regulators – thousands of passionate people play a role in making bathrooms better in the UK. But all too often, these dots remain unconnected.

That's where our association is trying to make a difference. As the UK's most influential bathroom community, our mission is to protect, promote, and progress every facet of bathroom design, delivery and maintenance. And we believe that by joining forces across this fragmented landscape, we can not only raise standards, but shape a future where bathrooms are smarter, more sustainable, and better understood – by everyone from specifier to end user.

The fragmented supply chain behind every bathroom

Let's start by acknowledging the complexity. A bathroom's journey involves:

- Architects and designers, specifying layouts and fittings.
- Manufacturers, engineering compliant, innovative products.
- Distributors, merchants, and retailers, ensuring availability across markets.
- Installers and plumbers, whose workmanship must align with regulations.
- Water companies and regulators, who set – and sometimes struggle to enforce – technical requirements.

Each stakeholder plays a critical role, but too often, they operate in silos. The result? Misinformation, delays, missed opportunities, and costly mistakes – especially when it comes to understanding and applying the Water Supply (Water Fittings) Regulations 1999.

The Regulation 4 Dilemma: a case study in disconnection

Consider the issue of water fittings and their suitability for purpose. Defra owns the overarching regulations but relies on regional water companies for enforcement. These water companies, acting as quasi-regulators, vary in how they interpret and apply their responsibilities.

Merchants and retailers, meanwhile, sell water fittings but have limited legal or commercial obligations to check for compliance. Trading Standards – the body meant to offer market surveillance – is chronically under-resourced, resulting in little meaningful enforcement.

Architects, faced with regulatory uncertainty, often fall back on specifying a single certification scheme – most commonly WRAS – as a shorthand for compliance. But WRAS is just one of four equally valid schemes, alongside Kiwa,

Each stakeholder in the supply chain plays a critical role, but too often, they operate in silos

Whether we're tackling outdated standards, promoting sustainable products, or driving better public health outcomes, a united bathroom industry is a force for good

NSF and BSI, that confirm a product meets Regulation 4. Insisting on only one narrows design choices and slows product innovation.

At the other end of the chain, installers carry some of the greatest regulatory responsibility, but often have the least clarity – a point underscored by the now-infamous AUK1 backflow protection issue, which blindsided much of the industry. And consumers – whether homeowners or commercial clients – are largely unaware of any of it.

This breakdown in communication is holding us all back.

The Innovation Lag: A second case study in disconnection

Elsewhere, showers that use significantly less water without compromising the user experience are now widely available. These products can transform water use in domestic and commercial settings, but they depend on sufficient water pressure to function properly. Without it, consumers risk having a poor experience and rejecting low-flow solutions altogether. To ensure success, specifiers and installers must work together to assess water pressure requirements and, where necessary, include booster pumps in system design. Even more transformative are recirculating showers – a game changer in reducing demand. Yet regulatory ambiguity threatens their uptake. We urgently need collaboration between regulators, manufacturers, and specifiers to clarify compliance pathways and bring this leap forward to market.

Innovation in bathroom technology is advancing rapidly, particularly in the area of water efficiency. Take, for example, the persistent issue of leaky loos – a widespread problem in the UK, exacerbated by our hard water, which interferes with valve seals and creates continuous flow. New flushing mechanisms have been engineered to eliminate this fault entirely. But their uptake is slow, due to a bias in specification and installation towards the familiar. Technological solutions are only part of the answer – we must ensure these innovations are adopted at scale. That means educating architects, specifiers, and installers, and embedding these improved systems into procurement criteria and design standards.

The case for collective progress

Our organisation exists to fix this. By connecting the dots, we're building a united front that benefits every stakeholder in the supply chain.

- For architects, we provide clarity on regulation, standards, and product certification – making specification easier, faster, and more flexible.
- For manufacturers, we offer the intelligence and access needed to meet demand while maintaining compliance.
- For policy-makers, we deliver evidence-based insight, helping shape regulation that works in the real world.
- For installers and distributors, we support training, communication, and market confidence.

Our work has a real impact. By aggregating market data, supporting innovation, and advocating for intelligent regulation, we drive growth and resilience in a highly competitive global sector. Most importantly, we do this while promoting better outcomes for the environment and the public.

This summer marks a major step forward in our journey. At the InstallerShow at the NEC on 24 June, we'll be unveiling some developments to streamline communication and drive shared progress across the bathroom ecosystem.

And this September, our annual conference at the Grand Hotel Birmingham (16-17 September) is dedicated entirely to 'joining the dots' – with sessions curated to spark collaboration between architects, policy-makers, suppliers, and installers. We want to hear from architects – your role in influencing design decisions and sustainable product choice is more vital than ever. Details are on our website.

Ultimately, the UK bathroom sector stands stronger when we work together.

Whether we're tackling outdated standards, promoting sustainable products, or driving better public health outcomes, a united bathroom industry is a force for good. Our vision is a future where every stakeholder – including architects – has the insight and influence needed to make better choices, faster.

That's why there's no more important place to participate than as a part of our association and community. Because when we connect the dots, we don't just make better bathrooms. We genuinely build a better world.

Tom Reynolds is chief executive of the Bathroom Manufacturers Association

Safer showering for secure spaces

In high-risk and demanding environments – such as mental health facilities, prisons, and specialist supported housing – designing for user safety and wellbeing is paramount. Horne Engineering's robust pre-plumbed shower panels are purpose-built to meet these challenges, offering exceptional durability, ligature resistance, and thermal safety in one fully integrated unit.

Every Horne shower is engineered for resilience, with a tough extruded aluminium casing to resist vandalism and protect internal pipework from tampering – whilst also protecting users from the high temperature of the hot water supply pipework. Controls and shower heads are forged from robust brass and zinc, shaped specifically to minimise ligature risk while tolerating repeated abuse or accidental damage. At the heart of each unit is Horne's thermostatic mixing technology – trusted in UK healthcare for over a century – delivering consistent, safe water temperatures, regardless of fluctuations in supply pressure or temperature.

Long-term value is a key consideration: all shower panels are fully assembled and rigorously tested off-site, reducing installation time and on-site risk. Ongoing maintenance can be streamlined thanks to easy-access components, low-cost spare parts, and comprehensive training resources, supporting operational sustainability over an extended lifetime.

Recent installations include Shimna House Addictions Unit, Crawley Open House, Maudsley Hospital, Leicestershire MH NHS Trust and Stepping Hill Hospital. Also trusted by the Ministry of Justice, various models of Horne's -LR (ligature-resistant) range are standard specification for the ongoing HMP Decency Showers upgrade Programme. Well over 800 Horne shower units, and counting, have been supplied for multiple refurbishments since 2021, to provide the UK prison population with safe, reliable and resilient facilities for their better well-being and dignity.

To further support design teams, Horne showers are also listed on NBS Source. BIM-files and specification data, authored to NBS standards, make it easier than ever for architectural designers to confidently integrate Horne's secure solutions into Revit, ArchiCAD, and NBS Chorus workflows.

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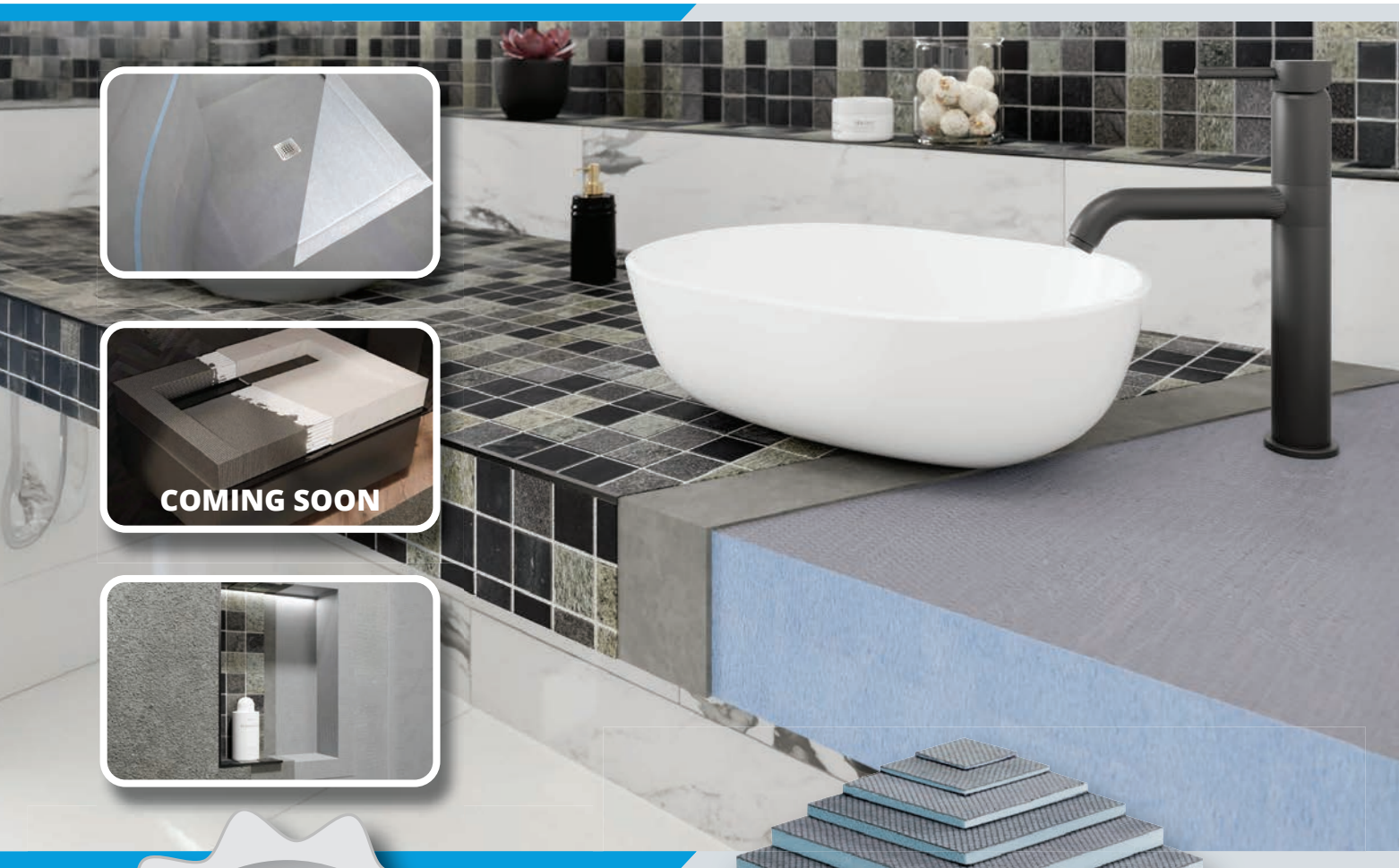

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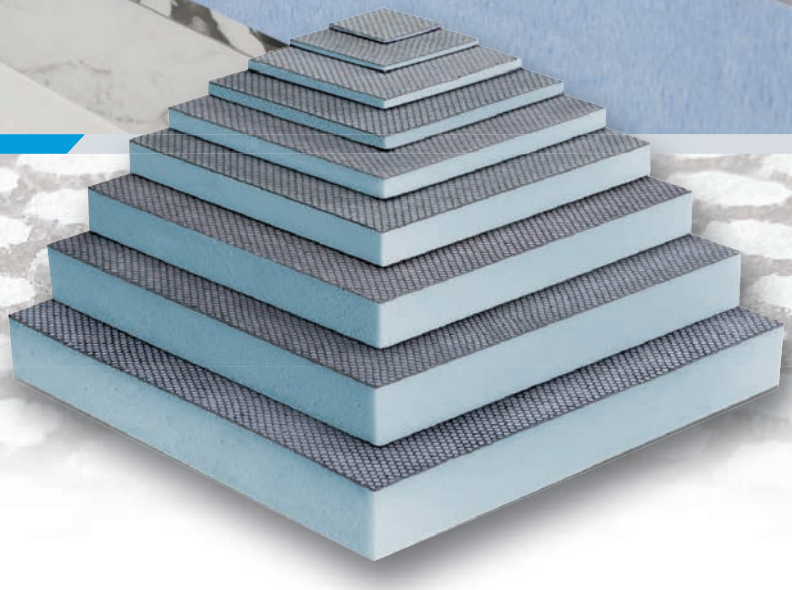

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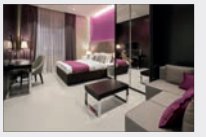
The opinions of the architectural community

As part of netMAGmedia's research offering, *ADF* has been increasingly harnessing the knowledge and views of its focused readership to produce 'Industry Viewfinder' white papers based on reader surveys. These are documents which contain unique insights and data on a wide range topics that are currently fuelling debate in the industry, from Passivhaus to Part L. This audience research, providing real-world experience, provides us with the opportunity to better understand the needs of our readers and tailor our content accordingly.

insights.netmagmedia.co.uk/whitepapers

The benefits of acoustic flooring



Reducing sound is more than just a 'nice to have' – it promotes the health of staff and service users. Noise levels from people and noise pollution from equipment and devices reverberate over sound-reflecting hard surfaces, extend over distances and linger; consequently, they can have a serious impact on the wellbeing of everyone. With a range of vinyl flooring that has sound-dampening properties, you can find **Altro** products that will serve your needs in more ways than one. With different levels of sound reduction, you can tailor your project to its exact specifications.

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Fast and clean luxury vinyl installs with Flex Pro Pure

For large scale projects, such as BTR, private housing developments, student accommodation and more, speeding up floor covering installation provides significant time and cost-saving benefits. For popular luxury vinyl floor coverings such as those in the Moduleo brand by **Unilin Flooring**, correct subfloor preparation and waiting times for adhesives to cure fully lengthen the time required to achieve a high quality floor covering installation. However, with Unilin Flooring's improved Flex Pro Pure self-adhesive underlay, flooring contractors can achieve a high quality installation while reducing subfloor finishing and completely eliminating adhesives. Flex Pro Pure saves the cost of flooring adhesives and subfloor finishing and is twice as fast as conventional dryback installation methods. For installations using more complex plank or tile arrangements, such as herringbone or the multi-shape tiles of Moduleo's Moods collection, Flex Pro Pure also allows for easy corrections with pieces simply lifted and repositioned. This is also advantageous if areas become damaged as planks or tiles can be quickly and easily replaced without disruption.

info.panels@unilin.com www.unilin.com

Balcoon – the new designer series from Duravit

Balcoon, a new bathroom series from **Duravit**; is a strikingly elegant design created by Patricia Urquiola. Created for the medium price segment the overall design plays with differences in height, projections and the overlapping of materials and textures, from which the name 'Balcoon' is derived. The above-counter basins create a sculptural focal point in the room. Playing with two different levels in this way is a constant across the entire collection – from the wall-mounted washbasins through the toilets and bidets up to the furniture elements and bathtubs. Earthy shades and textured finishes help to bring a 'hand-made' feel to the ceramics. One of the striking details within the Balcoon washing area is the console with its integrated rear pane, whilst underneath Patricia Urquiola designed an unusual, partly asymmetric arrangement of drawers and open shelves. The visual tension of the furniture elements is further reinforced by the combination of contrasting colours. The Balcoon acrylic built-in bathtubs re-enforce the interplay between two levels with two visually striking details: the oval, raised edge of the tub sits on a seamless acrylic panel that extends into the corners and is easy to clean.

01908 286680 www.duravit.co.uk

Embracing earthy pastels and patterns with Tile of Spain

Earthy tones continue to be a timeless trend in interior design, showing no signs of fading – especially as pastel variations gain popularity. With their enduring charm and calming presence, these shades complement a wide range of styles, offering a versatile foundation for creating warm, lived-in spaces. From muted terracotta and sage green to dusty teal and soft neutrals, tiles in these hues create the perfect retreat from the busyness of everyday life. Offering a rich variety of styles, patterns and finishes, **Tile of Spain**'s manufacturers make it easy to infuse any space with this soothing, grounded palette. With their warm undertones, these soft pastels bring a sense of comfort, individuality and a deeper connection to nature with their organic feel. Ideal for walls, splashbacks, floors and even outdoor areas like patios or courtyards, tiles in these palettes strike a perfect balance between style and serenity. As both homeowners and designers continue to seek peaceful interiors, earthy pastels are proving that less truly can be more, transforming spaces into grounded, expressive sanctuaries.

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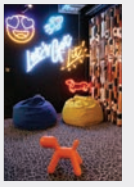
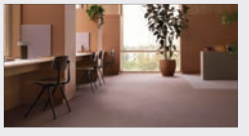


Interior designers Johnson Ribolla transformed an underused storage room into a joyful space for young residents at the Thames Quarter build-to-rent development, using **Forbo Flooring Systems'** flooring solutions. Giacomo Ribolla at Johnson Ribolla said: "A key challenge of the Kids Quarter fit-out was how we could create multiple different zones within the single space, with the flooring playing an important role in delivering this. Having worked with Forbo Flooring Systems before, we knew that their portfolio of solutions would provide us with the range of textures and colourways needed."

01773 744 121 www.forbo-flooring.co.uk

Forbo refreshes its Tessera Chroma range



Tessera Chroma was renowned for its contemporary aesthetic. Now, **Forbo** has updated this collection, not only refreshing its colour palette but also improving its sustainability credentials, with an impressive >80% reduction in embodied carbon. Curated to complement workspace design trends, Tessera Chroma is a textured loop pile carpet tile collection with sophisticated and trend-led colours. The latest updates to the range see it join Tessera Topology, Tessera Create Space and Tessera Twine in Forbo's new Evolve+ series, offering enhanced sustainability.

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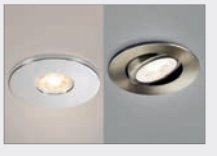
Safety and looks with FireNova



Knightsbridge's FireNova range prioritises fire safety with its innovative open-back fire-rated design. This simplifies compliance with fire safety regulations, while also supporting multiple lamp configurations, including LED and halogen options. Its open-back structure enhances ventilation, helping to extend lamp lifespan and improve overall performance. The FireNova range is available in two models: fixed and tilt. Both offer advanced fire protection of up to 30, 60, and 90 minutes for solid timber and 30 minutes for web and I-joist constructions.

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The essence of the Orient from Keller

Keller Kitchens has developed such a vast range of colours, styles and materials; flexibility in design is the company's mantra; along with prowess in sustainability initiatives. One emerging style is 'hotel chic' which combines luxury, elegance and comfort with a sophisticated aesthetic featuring high-quality materials and stylish furniture. Combining high-quality materials, glamorous accents and a sense of exclusivity, the design combines semi built-in units with Elba doors in walnut caramel and sesame; and handle trims in sesame.

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